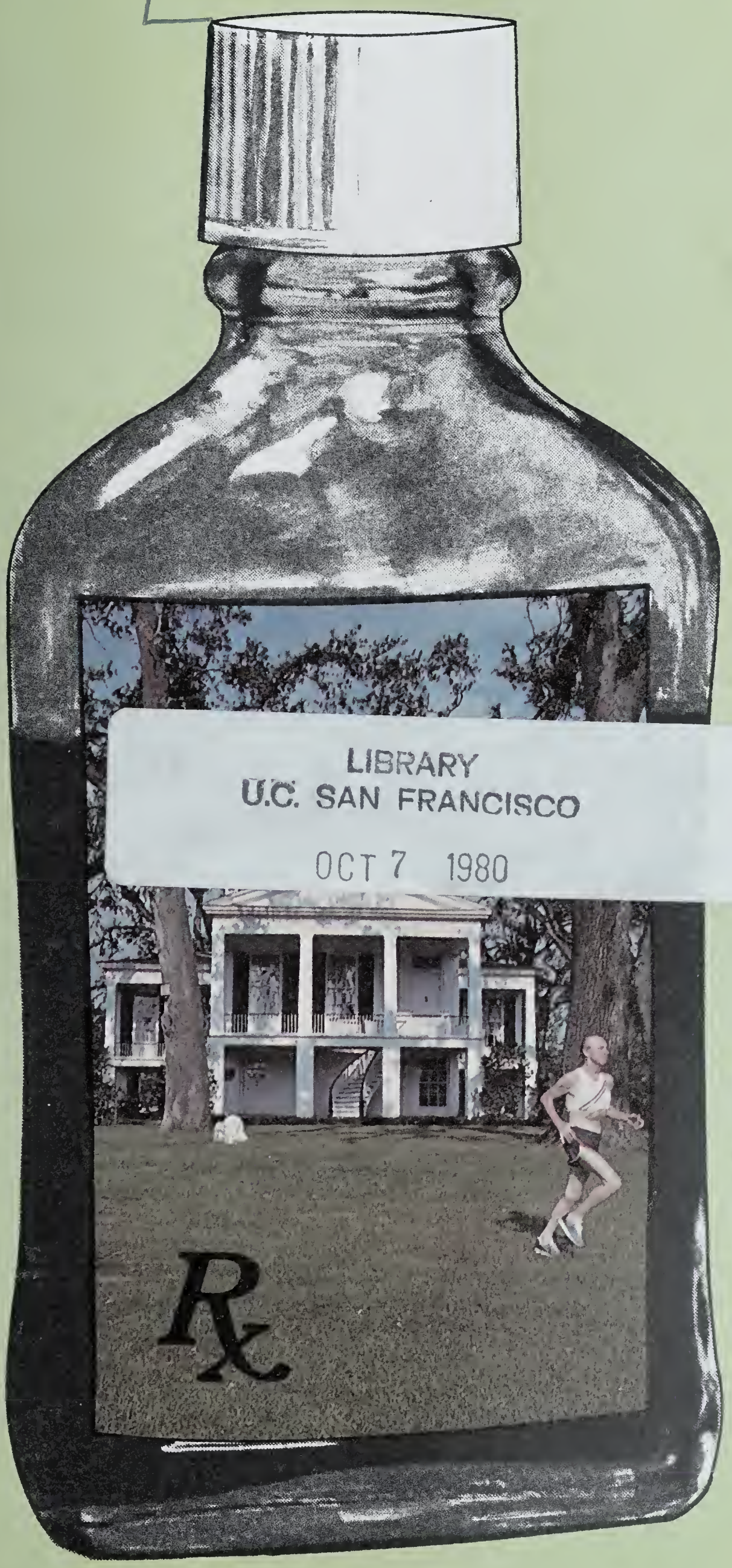
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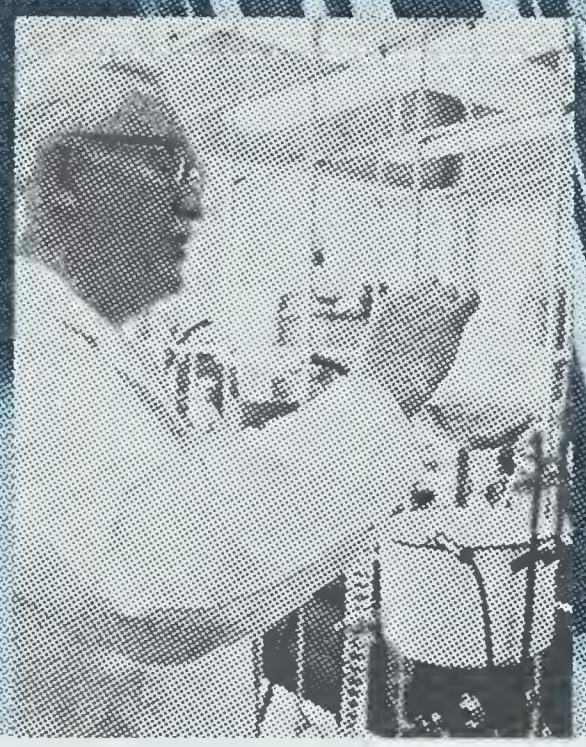
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Dr. Wert's Rx: When You're Too Comfortable, Run!

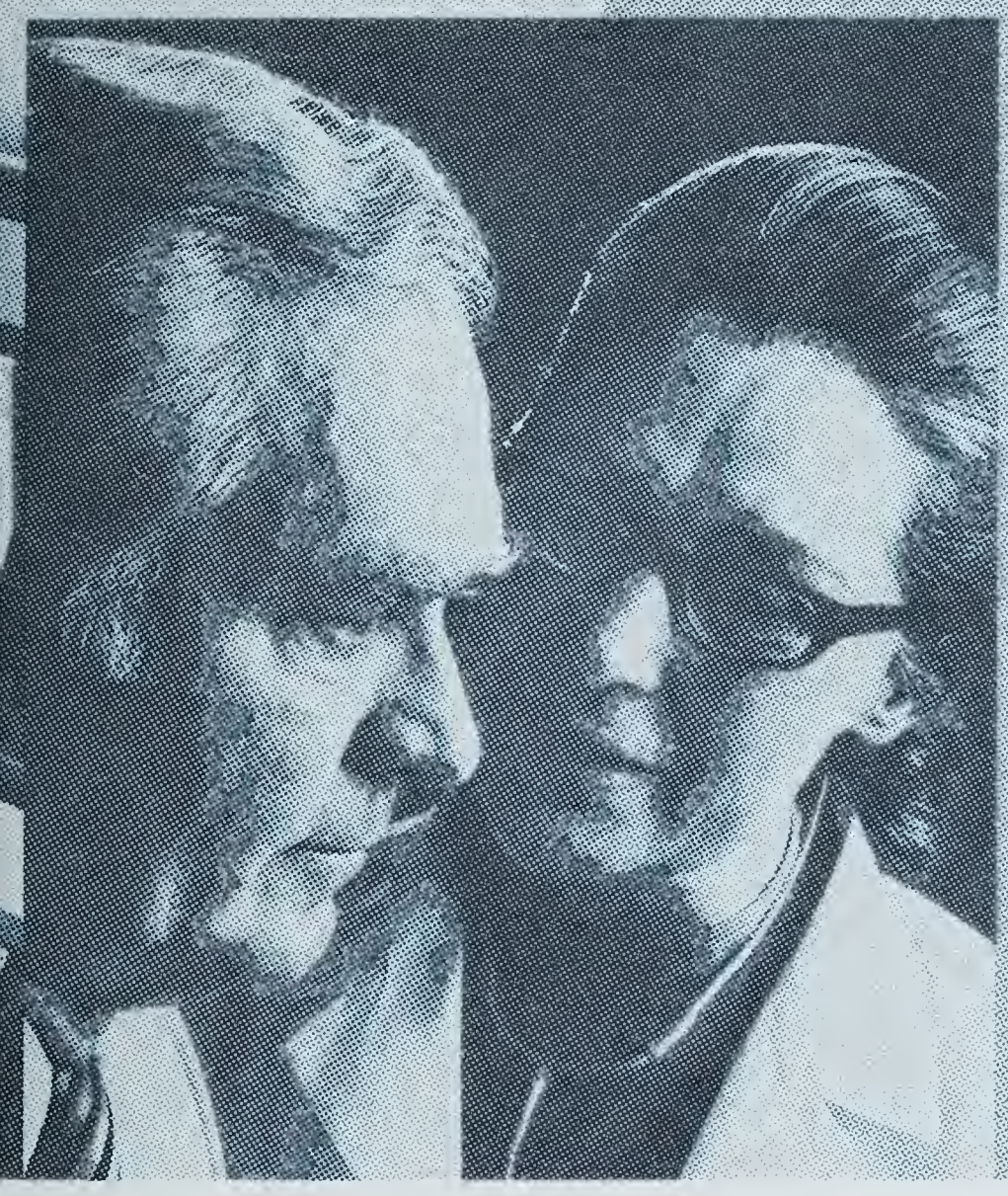
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proven antianxiety

Highly specific calming action
virtually free of unwanted
side effects: this was the remarkable
clinical promise of Librium (chlordiazepoxide HCl).
And today this promise continues to be
fulfilled in a wide variety of patients
you see every day.

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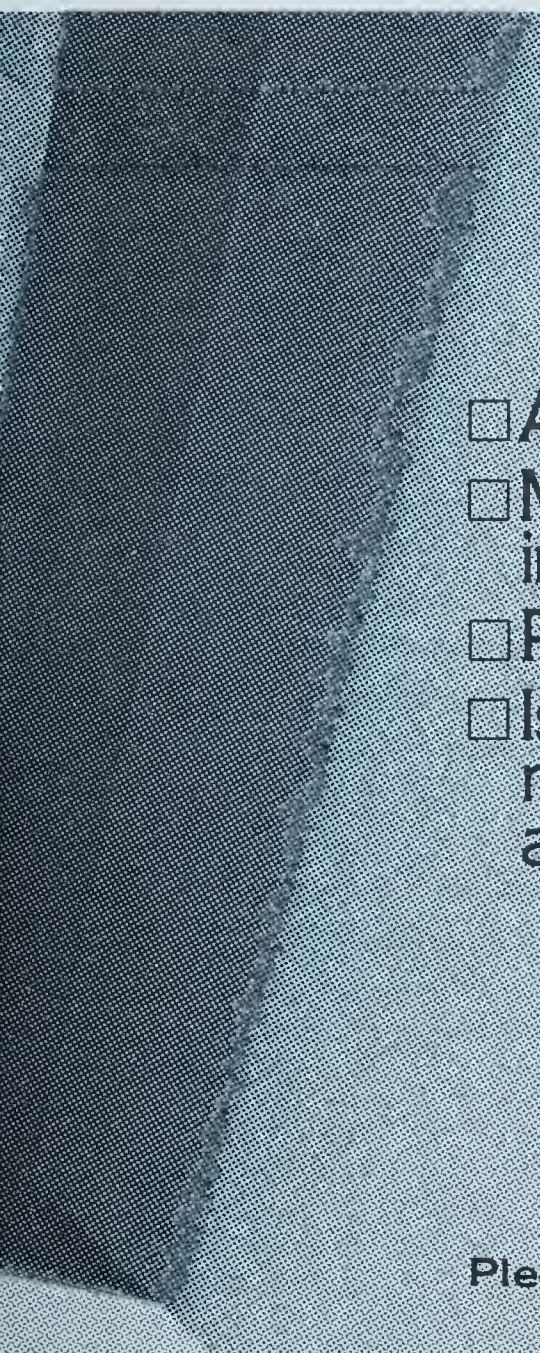
The published record on Librium is enormous. So large, in fact, it had to be put into a computer data bank and retrieval system. It's a record that shows Librium is highly effective in relieving anxiety; that Librium is seldom associated with serious side effects; that Librium rarely interferes with mental acuity at proper doses; that Librium is used concomitantly with primary medications. However, as with all CNS agents, patients should be warned against hazardous activities requiring complete alertness, and about possible combined effects with alcohol.

performance

Librium® (IV)
chlordiazepoxide HCl/Roche



5mg, 10mg, 25mg capsules



synonymous with relief of anxiety

- An unsurpassed safety record
- Minimal effect on mental acuity, in proper dosage
- Predictable patient response
- Is used concomitantly with primary medications, such as anticholinergics and cardiovascular drugs

Please see next page for summary of product information.

Librium® 5mg, 10mg, 25mg capsules
chlordiazepoxide HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral–Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d. Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

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From the Executive Director

What Do You Think?

In this space recently I mentioned a newly inaugurated *Journal* feature devoted to the creative avocational pursuits of Alabama physicians. In this issue, you will find another.

These stories are predicated on the assumption, so far unchallenged, that doctors are interested in what other doctors are doing with the little spare time they can eke from their practice.

Fortune magazine recently inaugurated a similar feature about the sometimes curious but always entertaining pursuits of some of the nation's top drawer executives. *Fortune* calls it "In Your Free Time" and devotes this space to such interesting articles as the chief executive officer of a major American industry who has become an expert marine biologist, a calling totally outside his business life.

The pursuit of these stories has led to other avenues as well, including a couple of major medical news stories in the state that might otherwise have never come to light.

Additionally, Communications Director Bill McDonald's travels to Mobile led to a staff suggestion that he work up some kind of special issue of the *Journal* for delivery before next year's annual session there.

Already, that research into the early struggle of medicine in the state's port city has opened a rich lore of Alabama medical history with some of state's pioneer doctors as protagonists in a drama that will carry our readers through the terrible epidemic years, when mystery and superstition demanded more art because there was so little science, into the modern era of medicine and public health.

The Mobile experience, as you all know, made its indelible imprint on Alabama medicine as on your Association. It also had a profound impact on the AMA and public health nationally.

We expect this sometimes random search for articles to produce other examples of serendipity for the *Journal* and *The Alabama M.D.* but we are heavily dependent on physicians to tell us of interesting colleagues or important news developments.

I would personally like to know what you think of this undertaking.

Lon

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Brief Summary

INDICATIONS: For the prevention and treatment of nocturnal recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis, and static foot deformities.

CONTRAINDICATIONS: Because of the quinine content, Quinamm is contraindicated in women of childbearing potential, in pregnancy, in patients with known quinine sensitivity, and in patients with glucose-6-phosphate dehydrogenase deficiency. Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine.

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Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

ADVERSE REACTIONS: Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. If ringing in the ears, deafness, skin rash, or visual disturbances occur, the drug should be discontinued.

DOSAGE AND ADMINISTRATION:
1 tablet upon retiring. When necessary, 1 additional tablet may be taken following the evening meal.

Product Information as of September, 1977

U.S. Patent 2,985,558

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specific therapy for painful night leg cramps

Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes or peripheral vascular disease . . . consider Quinamm . . . simple, convenient dosage—usually just one tablet at bedtime . . . can provide restful, welcome sleep without night leg cramps.

See opposite page for prescribing information.

getting back to business

with symptomatic relief of moderate anxiety with depression

Rapid relief of anxiety

The tranquilizer component alleviates symptoms of anxiety within a few days without apparent dulling of mental acuity. Hypnotic effects appear to be minimal, particularly in patients permitted to remain active. However, TRIAVIL may impair mental and/or physical abilities required for the performance of hazardous tasks.

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for moderate anxiety with depression

dual-action **Triavil**®

containing perphenazine and amitriptyline HCl

Treatment with TRIAVIL—a balanced view

TRIAVIL is contraindicated in CNS depression from drugs, in the presence of evidence of bone marrow depression, and in patients hypersensitive to phenothiazines or amitriptyline. It should not be used during the acute recovery phase following myocardial infarction or in patients who have received an MAOI within two weeks. Patients with cardiovascular disorders should be watched closely. Not recommended in children or during pregnancy. TRIAVIL may enhance the response to alcohol. Antiemetic effects may obscure toxicity due to overdosage of other drugs or mask other disorders. The possibility of suicide in depressed patients remains until significant remission occurs. Such patients should not have access to large quantities of the drug. Hospitalize as soon as possible any patient suspected of having taken an overdose.

MSD
MERCK SHARP & DOHME

Please see the following page for a brief summary of prescribing information.

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by providing symptomatic relief of moderate anxiety with depression

dual-action Triavil®

containing perphenazine and amitriptyline HCl

helps patients get back to business

Available:
TRIAVIL® 2-25: Each tablet contains
2 mg perphenazine and 25 mg amitriptyline HCl.
TRIAVIL® 2-10: Each tablet contains
2 mg perphenazine and 10 mg amitriptyline HCl.
TRIAVIL® 4-50: Each tablet contains
4 mg perphenazine and 50 mg amitriptyline HCl.
TRIAVIL® 4-25: Each tablet contains
4 mg perphenazine and 25 mg amitriptyline HCl.
TRIAVIL® 4-10: Each tablet contains
4 mg perphenazine and 10 mg amitriptyline HCl.

CONTRAINDICATIONS: Central nervous system depression from drugs (barbiturates, alcohol, narcotics, analgesics, antihistamines); evidence of bone marrow depression; known hypersensitivity to phenothiazines or amitriptyline. Should not be given concomitantly with a monoamine oxidase inhibitor since hyperpyretic crises, severe convulsions, and deaths have occurred from such combinations. When used to replace a monoamine oxidase inhibitor, allow a minimum of 14 days to elapse before initiating therapy with TRIAVIL. Therapy should then be initiated cautiously with gradual increase in dosage until optimum response is achieved. Not recommended for use during acute recovery phase following myocardial infarction.

WARNINGS: TRIAVIL should not be given concomitantly with guanethidine or similarly acting compounds since TRIAVIL may block the antihypertensive action of such compounds. Use cautiously in patients with history of urinary retention, angle-closure glaucoma, increased intraocular pressure, or convulsive disorders. Dosage of anticonvulsive agents may have to be increased. In patients with angle-closure glaucoma, even average doses may precipitate an attack. Patients with cardiovascular disorders should be watched closely. Tricyclic antidepressants, including amitriptyline HCl, have been reported to produce arrhythmias, sinus tachycardia, and prolongation of conduction time, particularly in high doses. Myocardial infarction and stroke have been reported with tricyclic antidepressant drugs. Close supervision is required for hyperthyroid patients or those receiving thyroid medication. May impair mental and/or physical abilities required for performance of hazardous tasks, such as operating machinery or driving a motor vehicle. In patients who use alcohol excessively, potentiation may increase the danger inherent in any suicide attempt or overdosage. Not recommended in children or during pregnancy.

PRECAUTIONS: Suicide is a possibility in depressed patients and may remain until significant remission occurs. Such patients should not have access to large quantities of this drug.

Perphenazine: Should not be used indiscriminately. Use with caution in patients who have previously exhibited severe adverse reactions to other phenothiazines. Likelihood of some untoward actions is greater with high doses. Closely supervise with any dosage. The antiemetic effect of perphenazine may obscure signs of toxicity due to overdosage of other drugs or make more difficult the diagnosis of disorders such as brain tumor or intestinal obstruction. A significant, not otherwise explained, rise in body temperature may suggest individual intolerance to perphenazine, in which case discontinue.

If hypotension develops, epinephrine should not be employed, as its action is blocked and partially reversed by perphenazine. Phenothiazines may potentiate the action of central nervous system depressants (opiates, analgesics, antihistamines, barbiturates, alcohol) and atropine. In concurrent therapy with any of these, TRIAVIL should be given in reduced dosage. May also potentiate the action of heat and phosphorous insecticides. There is sufficient experimental evidence to conclude that chronic administration of antipsychotic drugs which increase prolactin secretion has the potential to induce mammary neoplasms in rodents under the appropriate conditions. There are recognized differences in the physiological role of prolactin between rodents and humans. Since there are, at present, no adequate epidemiological studies, the relevance to human mammary cancer risk from prolonged exposure to perphenazine and other antipsychotic drugs is not known.

Amitriptyline: In manic-depressive psychosis, depressed patients may experience a shift toward the manic phase if they are treated with an antidepressant. Patients with paranoid symptomatology may have an exaggeration of such symptoms. The tranquilizing effect of TRIAVIL seems to reduce the likelihood of this effect. When amitriptyline HCl is given with anticholinergic agents or sympathomimetic drugs, including epinephrine combined with local anesthetics, close supervision and careful adjustment of dosages are required. Paralytic ileus may occur in patients taking tricyclic antidepressants in combination with anticholinergic-type drugs.

Caution is advised if patients receive large doses of ethchlorvynol concurrently. Transient delirium has been reported in patients who were treated with 1 g of ethchlorvynol and 75-150 mg of amitriptyline HCl.

Amitriptyline HCl may enhance the response to alcohol and the effects of barbiturates and other CNS depressants.

Concurrent administration of amitriptyline HCl and electroshock therapy may increase the hazards associated with such therapy. Such treatment should be limited to patients for whom it is essential. Discontinue several days before elective surgery if possible. Elevation and lowering of blood sugar levels have both been reported. Use with caution in patients with impaired liver function.

ADVERSE REACTIONS: Similar to those reported with either constituent alone.
Perphenazine: Extrapyramidal symptoms (opisthotonus, oculogyric crisis, hyperreflexia, dystonia, akathisia, acute dyskinesia, ataxia, parkinsonism) have been reported and can usually be controlled by the concomitant use of effective antiparkinsonian drugs and/or by reduction in dosage, but sometimes persist after discontinuation of the phenothiazine.

Tardive dyskinesia may appear in some patients on long-term therapy or may occur after drug therapy with phenothiazines and related agents has been discontinued. The risk appears to be greater in elderly patients on high-dose therapy, especially females. Symptoms are persistent and in some patients appear to be irreversible. The syndrome is characterized by rhythmical involuntary movements of the tongue, face, mouth, or jaw. Involuntary movements of the extremities sometimes occur. There is no known treatment for tardive dyskinesia; antiparkinsonism agents usually do not alleviate the symptoms. It is advised that all antipsychotic agents be discontinued if the above symptoms appear. If treatment is reinstituted, or dosage of the particular drug increased, or another drug substituted, the syndrome may be masked. Fine vermicular movements of the tongue may be an early sign of the syndrome. The full-blown syndrome may not develop if medication is stopped when lingual vermiculation appears.

Other side effects are skin disorders (photosensitivity, itching, erythema, urticaria, eczema, up to exfoliative dermatitis); other allergic reactions (asthma, laryngeal edema, angioneurotic edema, anaphylactoid reactions); peripheral edema; reversed epinephrine effect; hyperglycemia; endocrine disturbances (lactation, galactorrhea, gynecomastia, disturbances of menstrual cycle); altered cerebrospinal fluid proteins; paradoxical excitement; hypertension, hypotension, tachycardia, and ECG abnormalities (quinidine-like effect); reactivation of psychotic processes; catatonic-like states; autonomic reactions, such as dry mouth or salivation, headache, anorexia, nausea, vomiting, constipation, obstipation, urinary frequency or incontinence, blurred vision, nasal congestion, and a change in pulse rate; other adverse reactions reported with various phenothiazine compounds, but not with perphenazine, include grand mal convulsions, cerebral edema, polyphagia, pigmentary retinopathy, photophobia, skin pigmentation, and failure of ejaculation.

The phenothiazine compounds have produced blood dyscrasias (pancytopenia, thrombocytopenic purpura, leukopenia, agranulocytosis, eosinophilia); and liver damage (jaundice, biliary stasis).

Pigmentation of the cornea and lens has been reported to occur after long-term administration of some phenothiazines. Although it has not been reported in patients receiving TRIAVIL, the possibility that it might occur should be considered.

Hypnotic effects, lassitude, muscle weakness, and mild insomnia have also been reported.

Amitriptyline: Note: Listing includes a few reactions not reported for this drug, but which have occurred with other pharmacologically similar tricyclic antidepressant drugs and must be considered when amitriptyline is administered. *Cardiovascular:* Hypotension; hypertension; tachycardia; palpitation; myocardial infarction; arrhythmias; heart block; stroke. *CNS and Neuromuscular:* Confusional states; disturbed concentration; disorientation; delusions; hallucinations; excitement; anxiety; restlessness; insomnia; nightmares; numbness, tingling, and paresthesias of the extremities; peripheral neuropathy; incoordination; ataxia; tremors; seizures; alteration in EEG patterns; extrapyramidal symptoms; tinnitus; syndrome of inappropriate ADH (antidiuretic hormone) secretion. *Anticholinergic:* Dry mouth; blurred vision; disturbance of accommodation; increased intraocular pressure; constipation; paralytic ileus; urinary retention; dilatation of urinary tract. *Allergic:* Skin rash; urticaria; photosensitization; edema of face and tongue. *Hematologic:* Bone marrow depression including agranulocytosis; leukopenia; eosinophilia; purpura; thrombocytopenia. *Gastrointestinal:* Nausea; epigastric distress; vomiting; anorexia; stomatitis; peculiar taste; diarrhea; parotid swelling; black tongue. Rarely hepatitis (including altered liver function and jaundice). *Endocrine:* Testicular swelling and gynecomastia in the male; breast enlargement and galactorrhea in the female; increased or decreased libido; elevated or lowered blood sugar levels. *Other:* Dizziness, weakness; fatigue; headache; weight gain or loss; increased perspiration; urinary frequency; mydriasis; drowsiness; alopecia. *Withdrawal Symptoms:* Abrupt cessation after prolonged administration may produce nausea, headache, and malaise. These are not indicative of addiction.

OVERDOSAGE: All patients suspected of having taken an overdosage should be admitted to a hospital as soon as possible. Treatment is symptomatic and supportive. However, the intravenous administration of 1–3 mg of physostigmine salicylate is reported to reverse the symptoms of tricyclic antidepressant poisoning. Because physostigmine is rapidly metabolized, the dosage of physostigmine should be repeated as required particularly if life-threatening signs such as arrhythmias, convulsions, and deep coma recur or persist after the initial dosage of physostigmine. On this basis, in severe overdosage with perphenazine-amitriptyline combinations, symptomatic treatment of central anticholinergic effects with physostigmine salicylate should be considered.

J9TR33 (DC6613215)

For more detailed information, consult your MSD Representative or see full Prescribing Information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486.

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C. A. Lightcap, M. D.
President

The Bad Old Days

In the memory of many of us, the hot weather months here in the Deep South were not the good old summer time of song and story. They were the months of contagious disease and epidemic.

Better vaccines, antibiotics and quantum jumps in our science have left most of these epidemics but chapters in the long and honored profession of medicine, taking their place besides the great scourges: small pox, for example, called the greatest killer of all time; and yellow fever, that in the last century decimated the population of my native city, Mobile, and sent thousands fleeing in panic.

Public health in Alabama was, from the very beginning, the twin structure of our medical association. The first Health Officer, Dr. Jerome Cochran, was one of the prime movers of the Medical Society of Mobile County almost a century and a half ago. And the public health experience in Mobile became the model for the state, which in turn became a model for the nation.

We have indeed a history to be proud of in Alabama. Thousands of mothers can thank our profession for making it possible for them and their children to enjoy the summer time without the fear of scores of contagions that tragically cut down so many thousands of Alabama children of an earlier day.

Our professional predecessors never gave up, although the struggle at times must have seemed hopeless. And we must never give up our fight to preserve the independent practice of medicine that has demonstrated its altruistic dedication in this state as in no other.

C. A. Lightcap, M.D.

Dr. Wert's Rx: When You're Too Comfortable, Run

By Wm H. McDonald

Runners, almost to a man, speak with something approaching awe of the "high" they experience in doing their thing.

Books have been written about this state of grace, consciousness expansion, Nirvana, or whatever it is—the psychology of it as well as the physiology. Zen Buddhists have even experimented with the runner's euphoria as a more intense form of meditation. And biofeedback advocates have studied it. Whatever actually happens when all that fresh blood is pumped into the brain, it's real, according to all who jog or run for any length of time.

Earl B. Wert, M.D., Mobile pathologist, who started running at 65 and just recently celebrated his 67th birthday by running his customary daily six miles, believes in it too, though he has something of the pathologist's skepticism about its meaning:

"Almost everybody has experienced this. And it came along for me at a time when I thought I had done everything, but I hadn't. It's a kind of rennaissance, whether it's the Walter Mitty Syndrome, as played by Danny Kaye, or whatever—it is important to me."

Although less than three years into running, Dr. Wert has already participated in one marathon, all 26 miles of what has been described as the most grueling of all athletic events. He finished respectably.

The temperature was below freezing when he ran the Lake Pontchartrain Marathon in February, but he pressed on for three hours and 57 minutes, most of it across the famous long bridge.

He's entering the New York Marathon in October and the Boston, most famous of them all, next spring.

Why?

Times without number Dr. Wert has been asked this question. The answer he gives may be condensed to say that at age 65 he found himself too comfortable. His weight was stable at 185, he felt that he had accomplished the things he set out to do in life. Then he began wondering what a man of 65 could train himself to do in a society that generally regards that as the age to sit back, watch TV and participate in nothing much more strenuous than cards, or, for the truly athletic, shuffle board.

Dr. Wert had no athletic background to speak of. Back in his school days in Pennsylvania and New Jersey, he had tried most sports but had excelled at none. In his adult life, he had played tennis but found it too hostile, and had long ago given up golf as too frustrating.

It began simply enough, walking his dog at night, plodding along Mobile streets in his old Army shoes. Then, after a few months, he started a little tentative jogging: walk & run, walk & run. Nothing very demanding.

It was then he realized that it came fairly easily for him. Also, with the 1,000 calories a day he put himself on, his weight began to drop. Today he's down to 135, some 50 pounds lighter. But exercise alone won't do it, he warns:

"You've got to attack this weight problem from two angles. You have to diet and burn up calories. You burn up 100 calories for every mile or 15 minutes. Doesn't matter whether you walk or run.

"When you get rid of 600 calories a day, as I did, and take in no more than 1,200 to 1,500, something has to happen. You think you'll just disappear into a grease spot, but you don't. Nature is wonderful that way."

Reluctance Then Obsession

Dr. Wert doesn't permit himself the luxury of not feeling quite up to running on a given day. He runs every day of the year, regardless.

"In the beginning," he confesses, "I had to force myself to get out on the road. But, like most others, the time came when I had to keep running in its proper place or it would take over."

Injuries are the major problem with the sport (or obsession, depending on how you look at it). Slower running will prevent most of them, but some happen anyway. Most take three or four weeks to heal, and no medication or treatment seems to do much good, he says.

When Dr. Wert packs up for a medical meeting, the first thing he throws in his suit case is his running gear. He has run along the Charles River in Boston, Lake Michigan in Chicago, at 5,000 feet in Denver,

and up and down the hills of San Francisco.

What advice would Dr. Wert give any of his fellow physicians who feel tempted to follow his example?

"If they can afford the time, and they really should, they should start walking, give themselves at least six months, building up to an hour a day.

"After six months, or maybe four, break into a little jog and stop.

"Now, everybody thinks you should have a medical examination but I don't think that's necessary. I think the body will tell you what to do.

"After all, if you go to the doctor and you have a heart problem, he's going to put you on exercise, gentle exercise.

"If you don't have a heart problem, he's going to put you on exercise.

"Of course, everybody should have an EKG, I suppose, and a physical examination, but I think your body is going to tell you. . . .

"The alteration in physiology—the adaptation to the stress of running—that occurs is surprising. Nobody really understands what makes this come about at the cellular level. There are very few things we can measure chemically. In any event, it is very gratifying to feel these changes occur."

Often, Dr. Wert's running mate is Ken Ellingwood, M.D., who is 35 years younger, a skilled runner and sports medicine adviser to the U.S. Olympic Committee. An authority on the physiology of stress, Dr. Ellingwood says:

"Earl Wert doesn't get older. He gets faster."

Dr. Wert came to Mobile 32 years ago, after learning of an opening for a pathologist from an old Army friend. He had never been further South than Atlanta.

He fell in love with the port city, has been its coroner for all these years and is the honorary French consul by appointment of the late President Charles deGaulle in 1966. That position permits Dr. Wert to attend such events as Bastille Day in New Orleans in an official capacity.

"I am not convinced that running can add a day to your life," he says. "The evidence is not persuasive on either side of the argument at this point. But there is a narcissim about being in shape—the Walter Mitty phenomenon, I suppose—that is a great reward.

"Running seems to fit my needs psychologically and philosophically. Tennis and golf didn't."

The trick comes in learning to inflict just enough discomfort on yourself to permit the "mitochondria to chew up the lactic acid," he says with a grin. "The bad guys are oxygen debt, lactic acid buildup, CO_2."

The good guys are all those other products of running, tangible and intangible, including self-esteem that he calls narcissim and others call simply feeling good about yourself.



Responding to the Nebulous Threat of Rabies

H. Michael Maetz, VMD, MPH
and
Wallace E. Birch, DVM

Rabies has been considered a scourge of man for thousands of years, and through the first half of the 20th Century its significance in the United States was such that physicians, veterinarians and public health workers were frequently required to make decisions relating to its control and prevention.

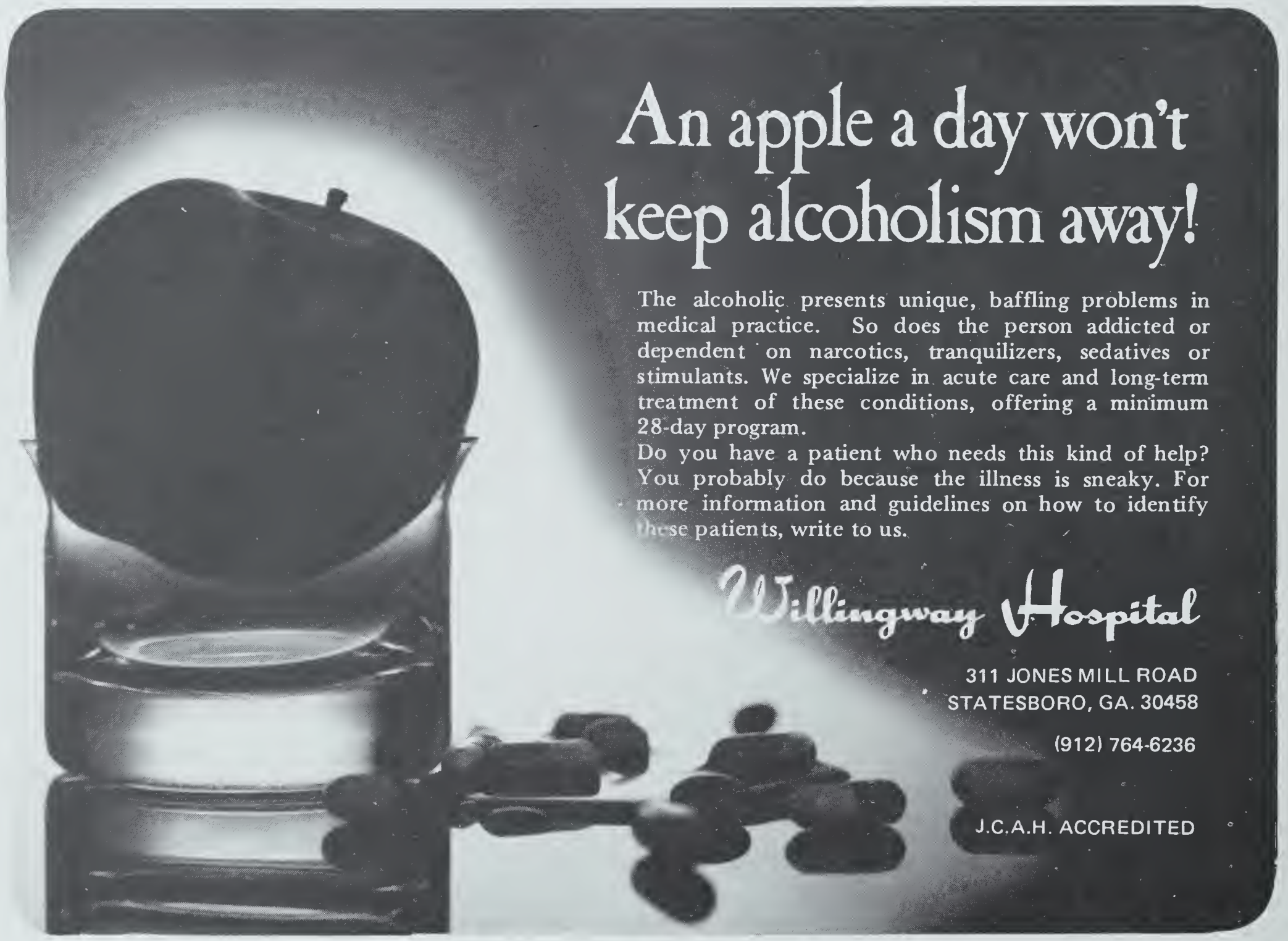
As late as 1960, Birmingham, Alabama, was considered by many to be rabies capital of the world, with hundreds of canine rabies cases confirmed every year. Aggressive animal vaccination and control efforts subsequently eliminated the Jefferson County problem by 1962, and although that county currently remains virtually free of the disease, recent increases in skunk and raccoon rabies in Northwestern and Southeastern Alabama and positive bats throughout the state suggest the possibility of its reappearance in areas where it has not lately been reported.

Regardless of whether the disease is present in a given region, a number of rather typical questions arise concerning the proper course of action when an exposure that could lead to rabies occurs. How difficult these questions are tends to be inversely related to the prevalence of rabies in that region.

Unfortunately, the disappearance of rabies from many areas has not been accompanied by a significant reduction in animal bite injuries of humans, the typical transmission mechanism of the disease. Well over one million dog bite incidents are estimated to occur annually in the United States, with cat bites also occurring in appreciable numbers, although the number of dogs and cats confirmed as rabid has remained low in recent years.[1] The increased popularity of exotic pets and recreational activities that favor contact with wildlife have now become the most likely ways man is exposed to the rabies virus.[2]

Implications of Rabies Reduction

Because of the frequency of bite injuries, many physicians are still routinely faced with decisions concerning post-exposure rabies prophylaxis, and they often must



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The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (1/2 ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For Potassium Supplementation

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Each 15 ml supplies 20 mEq of potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base.

The good tasting potassium supplement

- Designed for prophylactic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient b.i.d. dosage aid patient compliance.
- Avoids the problems of a chloride salt.

"The organic salt can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine."[1]



Note: In hypokalemic hypochloremic alkalosis, potassium chloride supplementation may be preferred.

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, p. 1959

See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.





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☐ **TWIN-K®**

☐ **SU-TON®**

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F-E-P CREME®

DESCRIPTION: F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic, preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE:

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows, "Possibly effective": Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma; nuchal eczema and chronic eczematoid otitis externa; acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris, corporis, pedis); moniliasis; intertrigo. Final classification on the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS: Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS: This product is not for ophthalmic use. In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY: Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboatory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS: F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period. Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests.

The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine. Prolonged use of this drug may result in an overgrowth of nonsusceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS: Skin rash or hypersensitivity may occur following topical application. The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliara. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION: Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. **F-E-P Creme** is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. **F-E-P Creme (Plain)** is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED:

F-E-P Creme	F-E-P Creme Plain
½ ounce (15 gm) tubes	½ ounce (15 gm) tubes
NDC 0524-0026-51	NDC 0524-0025-51

CAUTION: Federal law prohibits dispensing without a prescription.

TWIN-K®

DESCRIPTION: Each 15 milliliter (tablespoonful) supplies 20 mEq of elemental potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base with flavoring.

INDICATIONS AND USAGE: For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS: TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS: Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8–5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since usually the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic E.K.G. and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS: Symptoms of potassium intoxication include paresthesias of the extremities, flacid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE: The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with E.K.G. changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10–20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION: The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of elemental potassium. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) or TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED: Pint bottles. NDC 0524-0021-16

CAUTION: Federal law prohibits dispensing without a prescription.

SU-TON®

DESCRIPTION: Forty-five ml of SU-TON contains the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE: SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and Iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS: Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS: The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS: Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS: Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE: Drug dependence has not been reported with SU-TON.

OVERDOSAGE: Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION: One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED:

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16

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make recommendations concerning the handling of biting animals. It has been estimated that over 30,000 people in the United States receive post-exposure rabies vaccine every year, although over 80% of these treatments may be unnecessary.[3]

Unquestionably, most of these painful and costly treatments invariably have been administered because of a lack of familiarity with current rabies epidemiology. Indications of this deficiency were apparent in a recent survey of local health officers in Minnesota, an appreciable number of whom were unaware of the correct observation period for biting dogs or cats, the effect of vaccination on the animal observation period and the handling procedures for a wild biting animal.[4]

A survey of animal bite victims in Jefferson County, Alabama similarly revealed inappropriate recommendations concerning animal confinement, laboratory testing of biting animals and post-exposure rabies vaccination of the victims.[5]

Major Points of Clarification

Several misconceptions are typically held by medical and public health professionals and by the general public concerning rabies.

The Confinement for Observation of Biting Animals—a specific confinement period after a bite incident has been established *only* for the dog and cat (10 days). If infected, these two species will die of rabies within 10 days of the start of virus secretion in the saliva. The duration of virus secretion and thus the survival period of other species is unknown, however. Such animals should therefore be sacrificed immediately so that the brains may be submitted to the state laboratory for rabies testing.

Animal Susceptibility to Rabies—all warm-blooded animals are susceptible to rabies, but certain species are much more likely to be infected and therefore to transmit the disease. The most frequent animal sources in the United States are skunks (over 50% of all reported cases), raccoons, foxes and bats.[1] Contrary to popular opinion, squirrels, chipmunks and other rodents are rarely found to be infected, and no instance of rodent-to-man transmission of rabies has ever been documented.[6] The rabies risk posed by pet rodents such as gerbils, hamsters, mice and rats is virtually nil.

The Post-Exposure Rabies Series—Two inactivated virus vaccines are currently available for treatment of humans. The duck embryo vaccine (DEV) has been recommended for virtually all bite exposures that have warranted such treatment since 1957. The vaccine regimen is 21 daily doses with one dose of rabies immune globulin, Human (RIG) or antirabies serum, equine (ARS) administered at the beginning of post-exposure therapy. Since ARS causes serum sickness in nearly half of adult recipients, RIG is the preferred product. Two booster doses of vaccine should be given 10 and 21 days after the 21st dose, with additional doses indicated if the patient's antibody response is inadequate. Reactions at the injection site occur in nearly all recipients, while minor neurologic reactions have occurred in 1 in 3,000, major neurologic reactions in 1 in 28,000 and anaphylactic reactions in 0.9% of the vaccines.[7] These factors, when coupled with treatment costs that typically exceed $300-$400 justify careful evaluation of each animal bite case as to the indications for the post-exposure series.

Fortunately, the human diploid cell vaccine (HDCV) became federally licensed in June, 1980, although initial quantities are limited. The recommended post-exposure regimen is a series of five doses of vaccine to be administered on days 0, 3, 7, 14 and 28, with a single dose of RIG also given on day 0. HDCV has produced antibody titers approximately 10 times higher than DEV, with local or mild systemic reactions reported in only 20-25% of recipients thus far. If the antibody response is inadequate 2-3 weeks after the last dose, one or more booster doses of vaccine should be given.

The Significance of Prior Rabies Vaccination of a Biting Animal—although a "current" rabies vaccination greatly reduces an animal's risk of the disease, dogs and cats implicated in biting incidents must still be confined for observation. It is important to note that approved rabies vaccines are only available for these two pet species and for livestock. Initiation of the post-exposure series is generally unnecessary if the biting animal is under veterinary observation and continues to show no signs of rabies. As with other types of animals, however, dogs and cats could be killed immediately for testing of brain tissue if released by the owner.

Despite an obvious need to administer vaccine in certain cases (for example, after a skunk bite with the animal unavailable), many animal bite situations are less clear. Physicians must often consider not only the species, but whether the bite was provoked, the location and severity of the wound, the incidence of rabies in the area and the level of concern of the victim or parent prior to recommending the vaccine. State or local public health officials should certainly be consulted if questions exist. States in which physicians have more frequently utilized rabies consultation services have shown a dramatic reduction in the number of post-exposure rabies treatments initiated.[9]

Although the one to three human rabies cases that occur annually in the United States may stimulate complacency, persistence of the virus in carnivorous animals and bats and the invariably fatal outcome of infection will continue to require a response that is both prompt and appropriate.

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RESULTS OF MILWAUKEE BRACE TREATMENT IN IDIOPATHIC SCOLIOSIS

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With the advent of many new braces for the treatment of scoliosis, Boston, Kosair, TLSO, corset Lyonnaise[8,9,10,12], Lexan, Riveria, Prenyl, it seemed appropriate to renew our results in retrospective fashion over a eighteen (18) year period[1,2,7,5,10,11,14].

Recent evaluation of the Milwaukee brace has been made by Mellencamp, Blount, Anderson[4], Edmondson, Morris[3], Bonnett and Tosonian[6]. This paper attempts to follow roughly the data analysis plan of Bonnett and Tosonian[6].

These patients were all from a private orthopaedic practice. To be scheduled in this review, the following criteria were followed:

1) Idiopathic curves
2) The patient to have worn the brace at least a year or longer.
3) Initial and final x-rays to be included
4) Some subjective information on wearing the brace to be included.

The Milwaukee brace is utilized by the authors for the non-operative as well as the operative treatment of scoliosis. Many of the cases in this series went eventually to fusion and Harrington instrumentation when the curves became progressively worse.

Information gleaned from this study was:

I 1) Number of Idiopathic and juvenile curves.
2) A period of follow-up.
3) The suppleness of the curves.

II Types of curves; thoracic, lumbar and double thoracic-lumbar curves are listed in Tables D, E, F, G, and H.

III Failure to improve is listed in Table A.

IV Follow-up notes are included in Table B.

V Observations are listed in Table C.

Sixty-one were available from a brace population of 224. Fifty seven of these were Idiopathic and four were juvenile curves.

As in former series, 51 females outnumbered ten males. Three blacks were encountered. Follow-up period varied from 12 to 123 months. Forty five were followed 12 to 48 months and ten cases were followed over 60 months or more.

SUPPLENESS

In the Idiopathic scoliosis age range six to eight years, children's spines are more limber and lax, and correct markedly with bending films. The Milwaukee brace initially improves measurably. Standing and supine views demonstrate this and are of fair prognosis for initial correction of not for holding. Forty eight charts listed supple in 32 cases or 66%.

VARIATION IN MEASUREMENT

In 48 charts, there was no marked variation in measurement in 36 or 70%. There are not sufficient cases to attach any initial significance to this figure.

TABLE (A)
FAILURE TO IMPROVE

CASE NUMBER

1) Poor exerciser.
5) Night wearer only all the time.
16) Night wearer brace 50% of the total time, surprisingly holds her own standing at 18 years.
12) Poor exerciser and poor brace wearer.
14) Did not wear the brace well and was a poor exerciser.
16) Wore mostly at nighttime until maturity.
17) Long follow-up and remained balanced with the brace.
18) Went to fusion.
19) Went to fusion.
20) One hundred and 23-month follow-up and held very well.
21) A woman matured early at 17.
26) Went to fusion, held at about 50° to 60° in the brace.
25) Not followed long enough yet.
26) Ended with maturity.
27) Curve to 40° subsequently fusion.
28) Wore until night after she got married at 19, good symptoms and did her exercises well.
29) Wore the brace well from nine-years-old on. The



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family would not accept fusion and continued with the brace.
30) Too early to tell.
31) First year good but later poorly.
32) Went to fusion but eventually the hooks slipped on this patient with fusion and had to be re-inserted.
33) The parents were well satisfied with her wearing the brace and helped her wear it.
34) Inadequate follow-up. Inadequate wearing of the brace up to age 18.
35. Still wears the brace at nighttime.
36) The Milwaukee helped a great deal.
41) Rigid and went to fusion and good follow-up on both scores.
42) Went on to fusion and corrected to 30° post-operatively on the fusion but subsequently en situ eight-year follow-up.
43) Went to fusion and that required a second operation following this.
44) Went to fusion but required a second operation.
45) Went to fusion.
46) Ten to twenty degrees when she started and she was not seen for a period of about three years, increased the curve to 30° and was not seen for a period of two years and increased to forty 40° but wore the brace during this period of about six years.
17) Despite wearing the brace, went to two fusions but subsequently slipped to 74°.
49) Went to fusion after holding her own fairly well for a long period.
51) Only 20 months night wear which she did well but she held clinically and by x-ray.
52) Still in the brace at nighttime.
53) Was a poor wearer and subsequently went to fusion.
54) Very good wearing of the brace, increased to 40° during the wearing.
55) Not a good wearer.
56) Advised fusion as she increased to 50° which was refused.
57) Late start at 17 years but seemed to improve with wearing the brace and continued to wear it at nighttime.
58) Lumbar curve clinically, held at 53°. Looked good clinically but not by x-ray.
59) Four Orthopedists combined for follow-up.
60) Three years of night wear only, was well balanced and held her curve well.
61) Ten months of wear only.

FAILURE TO IMPROVE

A poor response was listed in 26% of these cases. An attempt to illustrate the Milwaukee and Newington exercises were made in all cases.

Some of the later cases in the series accepted Jennie Robertson's ballet exercises. As seen in Table A many other causes are listed. Wicker, Bunch, Burnett[4], have predicted the personality types who would appear to be the predictably poor Milwaukee brace wearers. We have tried to force a trial of the brace wearing where the curve indicated. A surprising number of cases were discovered who did not wear the brace after fitting it, abandoned it soon, or went on to only night wear. The latter, could be of more value than we initially considered and could be significantly helpful.

TABLE (B)
FOLLOW UP

1) Wore the brace 12 months full time and the rest at bedtime for three years. A seven year follow-up of 84 months. At 40° went to fusion.
2) Twenty-one months.
3) Sixty-nine months.
4) Thirty-six months.
5) Twenty-three months, mild curves, question of whether the brace did any good.
6) Twelve months, poor wearing of brace and exercises.
7) Eighty-four months follow-up, started at age six.
8) C-shaped curve, started at age six, successful.
9) College ended brace wearing; at night also.
11) Wears and tolerates the brace well during the period.
13) Questionable wear.
14) Curves remained mild throughout the treatment.
15) Poor follow-up.
16) Maturity has slowed her curves down.
17) Refused fusion.
18) A good wearer and holds her own with only a slow increase.
19) There is no reason for her poor brace wearing that we could tell.
20) Holds her own at 40°.
21) Good exerciser to begin with but poor at the end.
23) Held the balance clinically and by x-ray.
24) Poor exerciser, poor brace wearer, wore only at nighttime eventually. Had many small fits.
26) Gradually got worse in the brace.
27) Poor brace wearer, poor exerciser.
28) Good brace wearer, poor exerciser
29) Poor brace wearer, poor exerciser.
30) Hassle all the time with her about wearing the brace.
31) MCD looking to get out of the brace all the time and exercises.
32) No cause.
33) Mild curve.
34) Initially wore the brace well but only for a year or two, started too late at 17 to 18 years.
35) Held her own at night with night wear only.
36) Did well, worn until she was 17 years-old.
40) Poor exerciser, lumbar curves but held.
41) Rigid double curve started at 40° to 50° but held it's own.



A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC® (IV)

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.
Final classification of the less-than-effective indications requires further investigation.
The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported; most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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FOR MODERATE PAIN

A therapeutic dose of acetaminophen in *one* tablet

A therapeutic dose of two complementary analgesics

The convenience and economy of a dosage schedule of one tablet, every four hours as needed



WHY NOT WYGESIC® C-IV

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE. Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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42) No reason.
43) Poor exerciser and poor brace wearer.
44) Poor exerciser but good brace wearer.
45) Poor brace wearer.
46) Wore brace well for 12 months and then refused to wear it.
47) Poor exerciser.
49) No reason for her poor follow-up. Wore the brace and exercised well.
50) Did not stay with the brace and was a poor exerciser.
51) Supple enough but a poor exerciser and poor brace wearer.
53) Good exerciser, poor brace wearer.
54) No reason.
56) No reason.
57) Started at 17+10 with a 60° curve which improved to 40° because of her being supple and held her own at this.
58) Clinically looked good but x-rays remained about the same. She seemed well balanced.
59) Tension, probably subpsychiatric problems.
60) Held her own and improved 6° over the course and holding.
61) Went to fusion after 18 months of brace wear.

OBSERVATIONS

Observations are listed in Table C.

HIP POINTERS IN SCOLIOSIS

Excoriation of the skin on the ilium, or so-called hip pointers in sports are not uncommon. Wearing of the Milwaukee brace or other braces employing a tight pelvic piece can also cause this. It has been thought in the past that poor fitting in the iliac area was the reason, or poor fitting of the pelvic skirt itself.

Loose wearing of the brace has been implicated and tightening it up has been advocated by Blount and Moe[7]. Despite this, excoriation in the area occurs either because of the above or simply because of the delicate skin on some patients.

It has been advocated to use mole skin adhesive in this area over the area of excoriation to prevent it. It has also been advocated to place pieces of mole skin on the inside of the iliac skirt piece. Some other methods for healing of the skin have been used such as bandaids, wearing a T-shirt under the brace, talcum powder, or various kinds of powders. Medications used ran the gauntlet of all types. Recently, a mixture of bourbon and bismuth paste has been advocated as follows: a 40 gram vial and pour it full of Bismuth Subcarbonate. Take regular Bourbon and pour in until you make a consistency you want. Perry, quoted by Blount and Moe in the Milwaukee brace[4], has been indicated that the pelvic portion of the skirt piece should ride the external oblique muscle area just above the iliac crest in order to avoid hip pointers.

TABLE (C)
OBSERVATIONS

1) Supine and erect curves vary a good deal in measurement.
2) The measurements of a curve vary greatly over six months measurements.
3) Iliac skin complaints at times probably used as a lever to get out of wearing the brace.
4) Had trouble with the skirt piece and does not allow help as iliac pointers.
5) Secondary curves develop above and below the main curves as the compensation takes place.
8) C-shaped curve. Would it have corrected anyway?
9) Only slight increase.
10) Did not wear the brace well but progressed like she was wearing the Milwaukee very slowly.
11) The Milwaukee was worth wearing according to the patient and the family.
12) A small girl and a poor exerciser, I do not know whether her smallness gave her an inferiority complex or not.
13) Was "chicken" about her wearing her brace and exercising.
14) Really a curve that was not going bad with the brace, operation eventually, however.
15) Had a big fit all the time, indicates a poor wearer in our opinion.
16) Who wants to date in a brace? Did not improve after sex entered her life.
17) Progressed beyond 60° but refused fusion
18) We continued to advise fusion at 50° but the family would not accept.
20) The Milwaukee brace held her at 40° but she started at eleven years plus five.
21) Eleven to fifteen years of good wear. After this, at night only.
22) A good and well disciplined family.
23) A good family and disciplined.
24) We should have gotten her early but she held very well.
25) A supple curve that did well and corrected in the brace.
28) DeWald Rule: "Forty Degrees Or Bust".
13) I want to get something on the Milwaukee Brace Meeting in 1969 in Milwaukee. I would like to get a picture of John Moe applying a cast.
29) Curves increased in adulthood despite the brace. She probably needed the fusion at fifty degrees 50°.
31) Better to be a night wearer than not at all.
32) Multiple exercises for the family together helped a great deal.
33) Twenty to thirty degrees curves do well with the Milwaukee at nighttime only after holding well.
34) When the patients get to be women, the Milwaukee brace is not tolerated well if it interferes with their ideas along this line. It is possible that fusion might

be the better alternative even considering its risk.
35) Night wear and with only moderate progression.
36) Worth the trouble to get the correction she had.
37) Mentally retarded but did well with the brace.
38) Benign onset after onset of menstruation.
39) Wore brace from age 9 to 12 and held well.
44) Rigid double curves. Poor exerciser and poor brace wearer. Went to fusion at 50°.
42) Went to fusion at 40°.
43) Wore the brace and the operation was later successful.
47) Hard to get to wear the brace.
50) Clinically good but slow increase by x-ray.
51) Not long enough follow-up.
52) Continued to increase and we thought she might be a form Frust of Marfan's.
54) Wore the brace well but a poor exerciser.
55) Held her own very slowly, increasing.
56) Slow increase without too much improvement.
57) Started at 60° and wore the brace for five years and ended up at 60° at age 24.
58) Lumbar curves worse clinically than by x-ray.
59) Increased very slowly.
60) Wore the brace well and the iliac caps appear to be closed early.

ANALYSIS OF RECORDS

Sixty-one (61) patients were divided into three groups

I Out more than one year
II Out less than one year
III Still wearing the brace

AVERAGES 61 PATIENTS (D)

	I Forty patients	II Fourteen patients	III Seventeen patients
BEGINNING	30.87	30.2	31.05
IN BRACE	24.87	29.5	29.64
END	40.025	27.25	40.05
AFTER ONE YEAR	39.25	28.25	(last measurement)
ONSET BRACE WEARING			
ONSET MENARCHE			

(6) AVERAGE THORACIC CURVES (E)

	I (5)	II (0)	III (1)
BEGINNING	33.4	0	34°
IN BRACE	31.6	0	10°
END	41.6	0	30°
AFTER ONE YEAR	37.6	0	30°

(8) AVERAGE LUMBAR CURVES (F)

	I (5)	II (0)	III (1)
BEGINNING	22	0	42°
IN BRACE	19.6	0	35°
END	23.8	0	37°
AFTER ONE YEAR	25.6	0	30°

(37.) DOUBLE CURVES (THORACIC COMPONENT) (G)

	I (37)	II (5)	III (9)
BEGINNING	36.40	24	27.0
IN BRACE	31.16	20.6	23.0
END	38.10	26.6	26.66
AFTER ONE YEAR	40.51	32.2	25.66

DOUBLE CURVES LUMBAR COMPONENT (H)

	I	II	III
BEGINNING	30.8	25	17
AFTER BRACE	29	24.5°	22°
END	38	17°	11°
AFTER ONE YEAR	38	17°	42°

Thoracic curves started at 33° and progressed to 37°. Six lumbar curves were not of significant number. Forty seven double curves paralleled their single curve analogues in the single thoracic and single lumbar curves.

SUMMARY

This is a retroactive eighteen year study of the use of the Milwaukee brace for Idiopathic scoliosis in the setting of a private office.

GROUP I—had been out of the brace two years to six years

GROUP II—had been out of the brace one year to six years

GROUP III—wearing the brace at the time of follow-up

Observations on the initial severity of the curve and results of treatment are made. Observation and evaluation of the curve pattern and its response in (a) thoracic, (b) lumbar, (c) double thoracic-lumbar curve is made.

Clinical improvement by the patient and family was not always shared by the follow-up physician. Wearing the brace at night was more successful than predicted. Holding the line on 20-40° curves was the rule at maturity of the patient. Initial patient "fits" with the brace subsided but may recur at any time after two to three years. Steady improvement in the brace by Milwaukee and Minneapolis, made it more efficient and more acceptable. Average day and night wearing was three years but some continued to wear it at night to about five years. College entrance or marriage was usually the cut-off time.

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PERINATAL DEATH: INITIATING POSITIVE FAMILY GRIEF

Thomas M. Chase, M.D.

The birth of a baby is the culmination of the parent's best efforts and embodies all their hopes for the future. Because of the decrease in fetal and infant mortality in recent years, most expectant parents have little experience with pregnancy outcomes that are less than perfect. Nearly every pregnancy is therefore expected to be a successful one. Any other outcome is not only unexpected for the parents but, without appropriate support, can be a source of continuing future emotional and mental health problems. This is especially true in the case of sudden and unexpected fetal or infant death or a baby born with severe congenital anomalies.

Much has been learned in recent years about how parents respond in these situations and a virtual concensus has developed among many involved professionals about appropriate techniques useful in the management of these families. These approaches were, in fact, first advocated by parents who themselves had lost babies. Only recently have these techniques been used by nurses and physicians providing obstetrical and pediatric care when confronted with perinatal loss.

If obstetrical and nursery personnel could update their knowledge and skills concerning the grieving process, in all probability they would be greatly rewarded. They would certainly be more comfortable themselves interacting with a family confronted with a stillbirth or infant death. They would also know how to handle the grief experienced by families with an infant with a congenital anomaly, a situation in which the family is often grieving for the loss of an ideal newborn in addition to having very real concerns about being responsible for a handicapped child.

Knowledge concerning the grieving process and positive intervention would also help the health care professionals know how to handle the grief which they experience themselves in response to these stressful situations.

Seeing the Baby

Basically, we have learned that as professionals we must no longer "protect" in the postpartum recovery room or delivery room. We must, on the other hand, offer the parents information, insight, and perspective. One must make the most of any of these tragic events by encouraging the family to identify with the infant. The patient and her husband should be advised how useful the viewing of the baby has been to other families.

Regardless of congenital anomalies or postpartum changes, families are able to focus on positive features. The fact is that one's imagination of a congenital defect is often considerably worse than the defect itself. Certainly the parents should be advised of the appearance of the baby so that no surprise will occur. The infant should be wrapped nicely and the family should have time to spend alone with the infant. This may often be done in the postpartum recovery area or delivery room.

It goes without saying that if the family prefers not to see the infant, they should not be made to feel guilty. Under these circumstances they might be asked if another family member may want to view the infant and perhaps, if they would like, a photograph could be taken for later viewing.

Other attempts to give the dead baby an identity might also include baptizing and naming the child. Making funeral arrangements also has been important for a number of families in that they were able to participate in the infant's care even though it is now dead. It has been felt by a number of professionals that any action which gives the family some control in these matters is effective in attaining positive grief.

Women who lose their babies during their hospital stay are often moved away from the usual postpartum area. While at times this may be appropriate, in other instances it does the woman little good and seems to be done because the postpartum staff is uncomfortable providing care for a woman with a poor pregnancy outcome. Often, in fact, the patient may find support from a roommate with whom she has already established a relationship. Certainly, the patient should be given a choice as to where she would like to spend the rest of her hospital stay.

Decisions for Parents

Whenever a fetal or infant death occurs, it is helpful if the parents can be advised of decisions which they must make and have the options reviewed. The three important decisions include: (1) whether or not to view the baby; (2) Whether to have an autopsy; and (3) what funeral arrangements might be appropriate.

As stated previously, making funeral arrangements is a very important area of control which the parents should not relinquish to well-intended family members. The parents themselves should be allowed time to make plans. If at all possible, the mother should be able to attend the funeral service. Funeral directors might find an opportunity to counsel the parents in the hospital setting as they are attempting to reach their decision.

The final approach that a hospital staff might consider is that these positive actions should not be left to chance and individual professional interest. A perinatal bereavement team approach might utilize a protocol so that all important areas will be covered. Such a team might be composed of staff members with specific interest in the grief process which relates to perinatal bereavement.

The protocol might include the following steps for an interview with one or both parents on the day following their loss:

- Introduce yourself as a staff member interested in the grief process for perinatal bereavement. This will establish the framework for the conversation.
- Ask, How do you feel? One parent will often start the interview and during the course of conversation the counselor will often find out where the parents are in the grief process. If they do not want to talk, the counselor then states that he/she will return later because, "I need to know how you feel."
- Ask the parent/s how they normally respond in a crisis situation. Has there ever been a death in the family?
- Ask the parent/s with whom they normally talk—Who will support and help them during the following weeks?
- Ask if the parent/s had a chance to see the baby and how they responded to that experience.
- Ask if they plan an autopsy and discuss this briefly.
- Ask if they have decided on a funeral, or if they will have cremation or hospital disposal. (This of course will vary depending on the circumstances.) One might consider asking the funeral director to bring the baby back to the hospital once prepared for burial, especially if the mother will not be able to attend the service.
- Ask the family if they have ever known anyone who had a baby die.
- Ask about the home nursery. The parent/s should be advised that there is no pressure on them to dismantle the nursery, that families approach this in many different ways.
- Talk through the stages of grief with the family. For example: "Some people get angry." Talk with the patient and her family about how severe the stress may be, how difficult it may be for them. The fact that "time heals" is rarely not that helpful at the moment. Allow the parent/s to ventilate their hostilities. Talk about what a painful experience this may be. Have the patient know that she may call at any time for further support.
- A pre-discharge visit with the family is useful to review the effects of the experience on the mother's health and on her prognosis for the future. Parents are encouraged to face immediate problems at home such as siblings and friends. Advise the family of what to expect of the grief reaction in the next few weeks and months: sadness, loss of motivation and emotional capability, insecurity, somatic complaints, etc.
- Offer an optional follow-up visit in which the family could come back to the hospital in a few weeks to review the experience.

If the patient becomes pregnant again, the pregnancy should be managed as a high risk one. The patient will usually be insecure throughout. It does not reassure the patient to say that her previous experience was a "one in a million" event. It is better to say to the patient: "This is tough. How do you do it?"

And finally , it is very important to do several procedures differently with the next pregnancy so that the patient can focus her attention on positive action. Counseling the patient with a tragic outcome to a pregnancy is not complete until the patient has progressed successfully through a subsequent pregnancy.

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APPRECIATION

Dr. Charm Davidson, PhD, Perinatal Bereavement Couselor, University of Alabama Medical Center, Department of Obstetrics.

Alabama Guild for Infant Survival and International Council of Guilds for Infant Survival volunteer groups for Sudden Infant Death Syndrome.

Lee County Hospital, Opelika, Alabama. A community hospital with high standards and aspirations. Regional Education Department, Social Work Services, Chaplaincy Service and of course Labor and Delivery nurses are greatly appreciated.



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Contraindications VERMOX is contraindicated in pregnant women (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

Precautions PREGNANCY: VERMOX has shown embryotoxic and teratogenic activity in pregnant rats at single oral doses as low as 10 mg/kg. Since VERMOX may have a risk of producing fetal damage if administered during pregnancy, it is contraindicated in pregnant women.

PEDIATRIC USE: The drug has not been extensively studied in children under two years; therefore, in the treatment of children under two years the relative benefit/risk should be considered.

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The Role of the Social Worker in the High-Risk Nursery

By David C. Hefelfinger, M.D.[1]
and Jane Eure, M.S.W.[2]

Over the past 15 years significant technological advances have been made in perinatology, a specialty encompassing pregnancy, delivery, and the first 28 days of the infant's life.

Perinatal care requires a highly specialized staff and the most modern technological equipment. In 1976, less than 50% of the infants weighing less than 1,500 grams were surviving, and presently this approaches 70%.[1] The concept of regionalized perinatal care has developed around designated centers offering specialized services to a given geographic area. The specialized medical and nursing expertise, along with the technical equipment required for these high-risk neonatal intensive care units. limits the number of hospitals able to provide this level of care.

As a result, intensive care nurseries tend to be located in teaching hospitals, usually in larger metropolitan areas. When seriously ill newborns are delivered in suburban smaller facilities, smaller communities, or primary care hospitals, frequently necessary and proper equipment for life-saving care is unavailable and these newborns must be transferred quickly to another hospital. While the medical efficacy of tertiary care is sound, this organizational structure has social, economic, and psychological ramifications that merit the attention of a hospital-based social worker.

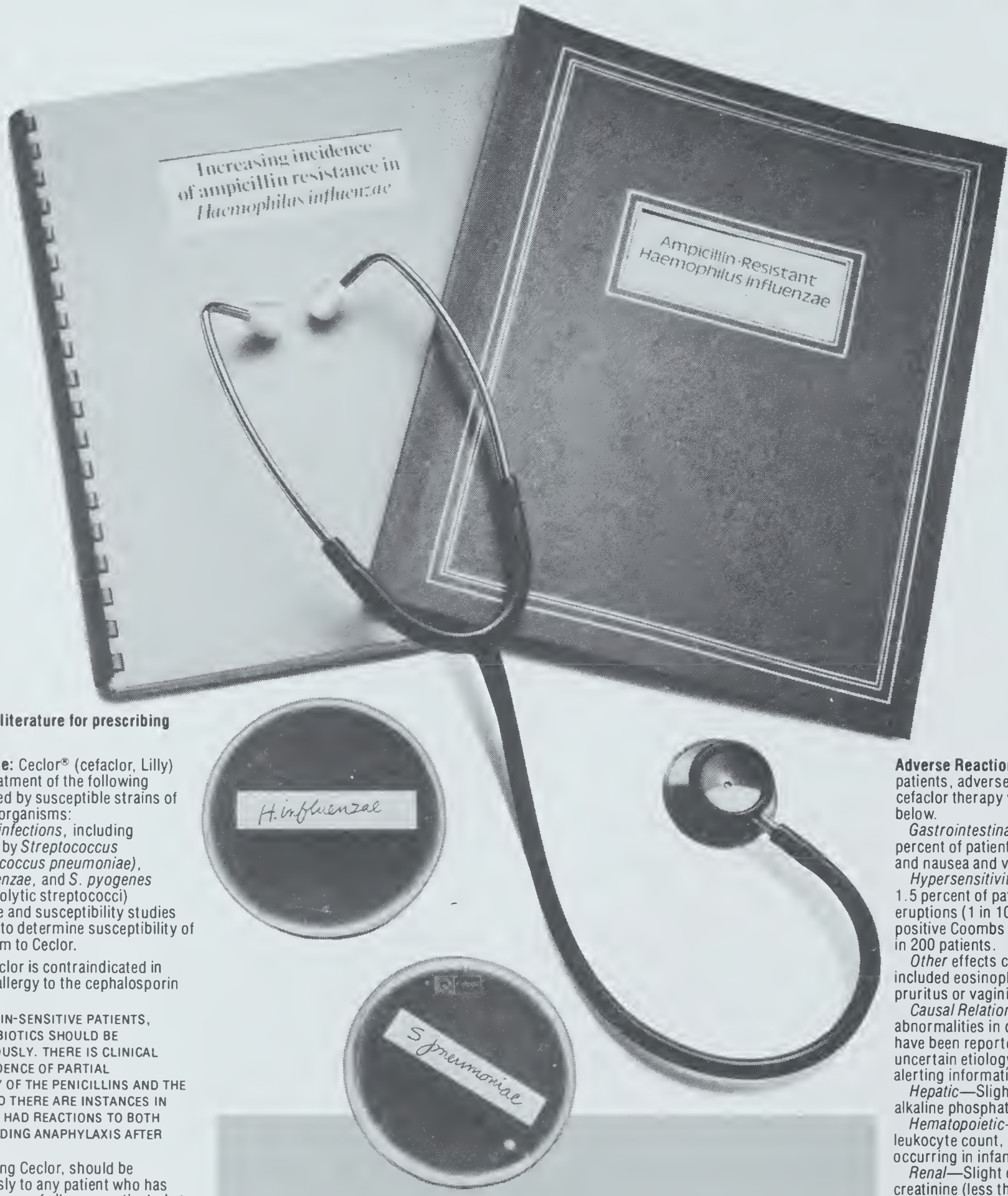
The birth of an infant who requires intensive neonatal medical care is a severe psychological crisis for its parents. The frequent occurrence of extraordinary anxiety, guilt, self-doubt, and separation fears is a well-documented fact.[2] Separation during the infant's critical first hours impedes the development of an immediate relationship between the mother and the child; it reduces and slows the mother's receipt of information regarding the progress of her child and heightens her anxiety.[3] The rapid development of tertiary high-risk nurseries, as well as the recognition of the effect of the psychological effect on the parents during this time of separation, have brought renewed interests in the area of infant-bonding and the impact of early mother separation, which frequently occurs for a prolonged period. The formation of these effectual bonds can be severely altered during this period of separation. Although these

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[2] Master Social Work, Druid City Hospital High-Risk Nursery, Tuscaloosa, Alabama.

Continued on page 38

An added complication... in the treatment of bacterial bronchitis*



Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor® cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: In clinical studies in 1493 patients, adverse effects considered related to cefaclor therapy were uncommon and are listed below.

Gastrointestinal symptoms occurred in about 2.5 percent of patients and included diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [070379R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

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Diagnosis and Management of Diabetes in Pregnancy

John F. Huddleston, M.D.
Division of Maternal and Fetal Medicine
Department of Obstetrics and Gynecology
University of Alabama in Birmingham

Diabetes is now known to complicate at least one per cent of pregnancies and will certainly be found to complicate an even greater percentage as diagnostic criteria become more widely applied. The combination of diabetes and pregnancy is potentially unfavorable and may result in various types of maternal morbidity, as well as in perinatal morbidity and mortality. However, with modern methods of management, even insulin-requiring patients can expect outcomes nearly as favorable as non-diabetic women.

Potential maternal morbidity includes a greater likelihood of infection, ketoacidosis, hydramnios, and pregnancy-induced hypertension. In addition, for both maternal and fetal indications, there is an increased chance that cesarean section will be necessary.

Perinatal problems are even more likely to occur. There is an increase in the frequency of major congenital anomalies, particularly those of the cardiac and central nervous systems. There is currently no satisfactory explanation for these anomalies, although poor metabolic control during the first trimester has been suggested. Since glucose rapidly crosses the placenta (by a facilitated diffusion process), maternal hyperglycemia results in fetal hyperglycemia, which in turn induces fetal hyperinsulinemia. In the immediate neonatal period, there is a relative insulin excess, which can cause severe (and often unrecognized) hypoglycemia within the first few minutes of life. In the fetus, the combination of elevated glucose and insulin is probably responsible also for macrosomia. Macrosomia frequently complicates diabetic pregnancies and contributes to an increased chance for cesarean section, or for birth asphyxia and trauma if vaginal delivery is attempted.

Outmoded Practice

Until the recent development of reliable fetal surveillance methods, unexplained fetal death during the last few weeks of gestation was the major motivating factor for the common (but now outmoded) practice of routinely delivering these patients several weeks prior to term. This effort to prevent intrauterine death, while successful in that respect, in many cases resulted in neonatal mortality or severe morbidity, tragedies now almost always preventable. Maturity of the fetal lung, the major determinant of neonatal survival, can be predicted clinically by the L/S ratio and related measurements of amniotic-fluid surfactant. There is evidence that fetal hyperinsulinemia interferes with the production of surfactant. Therefore, the L/S ratio, especially if the diabetes is poorly controlled, is commonly less than expected for a given gestational age. In the presence of diabetes, documenting the presence of phosphatidyl glycerol (PG) in the amniotic fluid may allow even more assurance that pulmonary maturation has occurred.

Hyaline membrane disease often results if delivery occurs without documentation of pulmonary maturity. Efforts to treat this disease, while usually successful in those centers equipped and staffed for mechanical ventilation of the newborn and for blood-gas analysis on a 24-hour basis, are often complicated by such problems as pneumothrorax, oxygen toxicity, and sepsis. Neonatal hypoxia during efforts at therapy may result in acidosis, intaventricular hemorrhage, and necrotizing enterocolitis. Immaturity of the fetal liver at the time of early delivery is a common cause of potentially detrimental (but manageable) hyperbilirubinemia.

In the non-diabetic gravida, the constant fetal drain of maternal glucose results in fasting glucose levels which are low by non-pregnant standards: 60-70 milligrams per deciliter being common. This and all subsequent references to glucose concentrations (in milligrams per deciliter) will reflect **serum** or **plasma** determinations, which are about 15 per cent higher than the previously used whole-blood values[1] Progesterone-induced smooth muscle relaxation results in slowed gastric emptying. Because of this and because of the glucose drain by the fetus, an oral Glucose Tolerance Test (GTT) will normally reveal depressed fasting and delayed peak values in serum glucose. O'Sullivan and Mahan[2] have published the most widely utilized criteria for interpreting

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the test when 100 grams of glucose are used: *serum* values equal to or exceeding 105 fasting, 190 at 1 hour, 165 at 2 hours, and 145 at 3 hours are abnormal. If any 2 of these values are abnormal, gestational (Class A) diabetes is diagnosed.

Pregnancy produces stresses which may serve to uncover an underlying diabetic tendency. Several factory, primarily hormones from the placenta, increase the amount of insulin output required to manage a given glucose load. Thus, some women with normal glucose tolerance in the nonpregnant state may manifest abnormal glucose tolerance during pregnancy. Most will regain normal glucose tolerance postpartum but will have an increased liklihood of developing overt diabetes during the subsequent few years. These gestational diabetics may constitute as many as 2.5 per cent of women not previously recognized as diabetics.[1] Because hormonal diabetogenic factors steadily increase as pregnancy advances, it is appropriate to repeat any initially normal tests of glucose tolerance later during pregnancy, preferably between 30 and 32 weeks, a time at which there still remains a realistic expectation of effective intervention.

Family History

Historical factors, such as a strong family history of diabetes or the prior delivery of a macrosomic (greater than 4000 gram) or stillborn infant, serve to identify pregnant women with an increased liklihood of abnormal glucose tolerance. Glycosuria, frequently found during normal pregnancy, is due to an augmented glomerular filtration rate without corresponding increase in tubular resorptive capacity. It should not be considered abnormal unless strongly positive, persistent, or found in the fasting state. Relying upon historical factors alone will result in overlooking about 20 per cent of gestational diabetics.[1]

A universally applied screening test performed early in pregnancy and repeated at 30-32 weeks will detect nearly all gestational diabetics. At their initial prenatal visit, all gravidas not known to be diabetic are instructed in a special breakfast containing 100 grams of carbohydrate.

This breakfast consists of:

½ cup of unsweetened orange juice
¾ cup of unsweetened dry cereal with 3 teaspoonfuls of sugar and one cup of whole milk, and
2 slices of buttered toast, spread with a total of one tablespoonful of jelly

The meal is eaten just prior to the second clinic visit, at which time a 2-hour postprandial screening test is performed. A serum glucose value of 140 or more prompts a full 3-hour GTT. If the GTT is abnormal, sufficient time is taken to fully explain the meaning of this to the woman and to enlist her full cooperation in managing the remainder of her pregnancy. She is placed on a diabetic diet of 90-100 grams of protein and about 2200 calories (30-35 calories per kilogram) daily. It is important to emphasize that a weight gain of 22-24 pounds (10-11 kilograms), primarily acquired at a steady rate during the second and third trimesters, is appropriate and to be encouraged. Caloric restriction for these women is inappropriate. The carbohydrate calories are generally apportioned to provide an equal amount (2/7 of the total) at each of the three major meals and half this amount (1/7) at the time of a bedtime snack.

Monitor Blood Pressure

Other important aspects of management include careful attention to blood pressure, which during normal pregnancy is less than 130/80. Particular attention is also directed toward assessment of gestational age, and ultrasound is ordered during the second trimester if there is any doubt about clinical assessment. Proteinuria and retinopathy are carefully sought. A creatinine clearance is ordered to establish baseline renal function, and a clean-catch urine culture is obtained. Detection of asymptomatic bacteriuria, important for all pregnant women, is particularly so for the diabetic, in whom any severe infection can rapidly cause ketoacidosis with consequent fetal loss. This propensity toward rapid ketoacidosis is because pregnancy is normally associated with depressed bicarbonate reserves. Any increased production of fixed acid can thus precipitate a fall in pH. Diuretics are almost never indicated. Their use, whether the intention is to prevent or to treat pregnancy-induced hypertension, has never been proven of value, and may be harmful.

Weekly, early-morning clinic or office visits are planned. This timing is appropriate because the fasting serum glucose concentration is checked at each visit, immediately after which the woman should eat her breakfast. It is not necessary to obtain other glucose checks, such as 2-hour postprandial values, for these gestational (Class A) diabetics. Because glycosuria is frequently found even with normal glucose tolerance, and because at times even high serum glucose levels will not be associated with glycosuria, urine glucose measurement can only be a very gross estimator of diabetic control. As long as the fasting serum glucose values remain below 105, no special measures need be taken,[3] and the pregnancy is allowed to go to term. Spontaneous labor and delivery are anticipated. Hypertension, hydramnios, insulin requirements or stillbirth in previous pregnancy, or progression of the current pregnancy beyond 40 weeks alter these conservative management guidelines and prompt management along the lines of the insulin-requiring patient.[3]

If a gestational diabetic is unable to maintain her fasting glucose level below 105, whe is placed on insulin and her pregnancy is viewed with much more concern. Oral hypoglycemic agents should not be used because of possible teratogenesis and because of associated profound hypoglycemia in the neonate. Reports from several centers have established that control of serum glucose concentrations to values **normal for non-**

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Tenuate Dospan®
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AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy*: Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children*: Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular*: Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System*: Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal*: Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic*: Urticaria, rash, ecchymosis, erythema, *Endocrine*: Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System*: Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous*: A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

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Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness *(e.g.,* operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression: suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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diabetic grayidas is by far the most important determinant of successful pregnancy outcome. One must keep in mind the normal 60-70 fasting values and the fact that only rarely does the normal serum value exceed 100, even postprandially. Best control throughout the day and night is usually achieved using the aformentioned diet in combination with split dosages of a combination of intermediate- and short-acting insulins given 30 minutes prior to the morning and evening meals. NPH and regular insulins are usually chosen, in an initial ratio of 2/3 the total dose in the morning (2/3 NPH and 1/3 regular) and 1/3 the total dose in the evening (half as NPH and half as regular). This first approximation generally totals 18-20 units for patients beginning on insulin and is equal to the total day's dosage for women previously on the drug.

It is important to emphasize that this is a first approximation only and that frequent *serum glucose* measurements are necessary to determine the most appropriate dosages. These measurements are generally done at least weekly, and more frequently initially and whenever control is suboptimal. In order to evaluate the effectiveness of each insulin type at both injection times, serum glucose must be measured several times on the day evaluation occurs. Checks at 7 AM, 11 AM, 4 PM, and 9 PM will allow an appropriate evaluation (assuming meals are taken at 7 AM, noon, 5 PM, and the snack is at 9 PM) The goals for serum values at these times are 70-80 fasting and 80-90 at the other three times. Maternal hypoglycemia may occasionally occur, especially during the first trimester. The woman should be taught to recognize and treat the symptoms. It is probable that an occasional hypoglycemic event is far less ominous for perinatal outcome than is poor metabolic control. Insulin itself does not cross the placenta in either direction.

Maintaining Control

Frequent brief hospitalizations may be required to gather these data and to achieve and maintain control. However, such control is difficult to maintain after discharge because the home diet and exercise programs are never going to be exactly as followed in the hospital. Moreover, the same progressively increasing factors which tend to unmask latent diabetes will usually progressively increase insulin requirements. We have been reasonably successful following most patients as outpatients with only occasional, brief hospitalizations for control.

Insulin-requiring diabetics (and those complicated gestational diabetics previously noted) are followed the last few weeks of pregnancy with fetal surveillance tests. Beginning at 34 weeks, oxytocin challenge tests are performed on a weekly basis. There is evidence that hyperglycemia alters fetal hemoglobin in such a way that even brief episodes of hypoxia may not be tolerated. The OCT evaluates fetal oxygenation and, by inference, the adequacy of placental perfusion.[4] The negative test, which is seen in the vast majority of instances, has proven extremely reliable in allowing a policy of nonintervention, and therefore in minimizing unnecessary prematurity. In a large clinical study of insulin-requiring diabetics, there were no fetal deaths within a week of a negative OCT.[5] More recently, the more easily performed nonstress test (NST) has gained popularity as a primary test of fetal wellbeing. Becuase the NST has not been nearly as thoroughly tested as has the OCT in pregnancies complicated by diabetes, we have continued to use the OCT with diabetics, while primarily using the NST for our indications of less fetal risk.[6] If the OCT is positive when carefully performed and interpreted, expedient delivery is usually indicated. However, the L/S ratio should first be determined and, if not indicative of fetal pulmonary maturity, consideration may be given to ordering daily serum or urinary estriol determinations, or to performing daily NSTs.[6] Unless a repeat cesarean section is planned, induction of labor should be attempted for pregnancies with consistently negative OCT's when 38 weeks have been attained *and* the L/S ratio indicates pulmonary maturity.

No Exceptions

Labor should **always** be electronically monitored. If a positive OCT prompts the induction of labor, the fetus should first be prophylactically treated for fetal distress by maintaining the mother in the lateral position, hydrating her well intravenously, and providing her with nasal oxygen.[4] The same procedures should be quickly instituted should monitor evidence of fetal distress be noted at any time in those pregnancies with consistently negative OCTs.

There is evidence that maintenance of normoglycemia during labor lessens the liklihood of neonatal hypoglycemia. Frequent glucose determinations should be combined with either small doses of insulin subcutaneously or, preferably, by constant infusion.

Delivery should be effected as atraumatically as possible. If the estimated fetal weight is greater than 4000 grams, cesarean section without a trial of labor should be considered. For obvious reasons, another person skilled in managing the problems of these newborns should be present in the delivery room.

By carefully identifying and managing all pregnant diabetics, perinatal mortality rates which differ little from the non-diabetic gravidas can be achieved. The importance of being able to dedicate sufficient time to the management of these pregnancies cannot be overemphasized. In many cases, referral of these women to a regional perinatal center will be appropriate.

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The Role Of The Social Worker In The High-Risk Nursery *Continued from page 29*

new centers have dramatically lowered infant mortality, the social, emotional, and psychological manifestations have been significant.

In December 1978, the Druid City Hospital, which is a teaching hospital working in conjunction with The College of Community Health Sciences, University of Alabama, added a social worker to its high-risk nursery. This was made possible as a result of legislative funding made available to the University for the development of improved neonatal care and training at the high-risk nursery. Since this time, the social worker has become an invaluable member of the "team" and has played a key role in perinatal care. The social worker's professional training in crisis management, the dynamics of human behavior, interviewing and counseling skills, together with an awareness of the emotional factors of pregnancy, childbirth, and parenting provides unique talents to the nursery team. Such problems as the premature delivery in an outlying community hospital and sudden transfer to a regional enter, delivery of a sick infant or the birth of an infant with a birth defect provides unexpected stress to the mother, father, and other family members.

Since the social worker has been assigned to the high-risk nursery for over one year, we now are able to reflect back on the type of activities the social worker has provided for physicians, nurses, parents, and infants.

Assessment in Active Intervention

The initial task of the social worker at the time of the baby's admission to the high-risk nursery is an assessment of the situation. Many questions need to be answered such as: What medical problems precipitated earlier problems in the delivery of transfer? What is the mother's past obstetrical history? What is the parental or family understanding of the diagnosis and what is their emotional response to it? How far away do they live and what financial arrangements are available to them? Will transportation to visit the infant be a problem? If there are other children, what arrangements and/or resources are available for them?

The social/emotional profile determines the type of interventive services the social worker will provide and helps the medical staff to understand more fully the problems which parents may present in coping with the situation. Within our nursery, the problems have been quite similar to those of other perinatal centers in the state in that there is a predominance of low socio-economic mothers who are frequently unwed and have a lower level of intelligence.

Since teenage pregnancy is rampant and increasing, many of the high-risk babies are the products of such pregnancies and are more commonly found in the black populations. Because of the emotional and social immaturity of these mothers and the financial problems which are usually present, intervention by the social worker must be aggressive. It involves an ongoing contact with the parent or parents, interviews to determine ability and/or willingness to care for the child, checking with social agencies who already know the parent, and proceeding to make plans with social agencies for following care of the child.

A number of fairly classical responses to the birth of a seriously ill or deformed child have been identified in necessitating social work intervention. These include grief over the perfect child that the parents were anticipating; feelings of failure, guilt, embarrassment, or anger; anxiety about the ability to provide adequate care once the newborn is discharged, [4,5] and marital strain.

Emotional support for these problems is vital, likewise if there is inappropriate, or inadequate anxiety or concern, followup must be assured to document willingness and follow through by parents.

Supportive Casework

This technique is used to provide support for the parents who have newborns in the high-risk nursery. It involves answering questions, providing information about procedures and rules, encouraging early visitation, and when appropriate, offering reassurance. One of the advantages a social worker offers the team is that the parent is often more easily able to verbalize his/her fears and concerns to one not directly involved in the medical treatment. She is often more accessible to the family. The use of her interviewing and counseling skills also enables her to help the family to ventilate feelings. The social worker is also able to help team members understand the parents' feelings and to ensure that consistent information is being provided to the parents.

The role of the social worker could probably best be described as a "bridge" between the medical personnel (doctor, nurse, respiratory therapist, etc.) and the parents. This can help parents to be free from over-concern and anxiety; more than that, the social worker helps parents to feel that they are included in, and knowledgeable about what is happening with their baby, thus decreasing their sense of feeling "isolated" by the system. In this way, the system becomes more personal, more caring and understandable. The physician is thus free to spend as much time as necessary with the critical newborn. This is not to imply that the physician does not discuss the problems encountered in the care of the critically ill neonate, but only to emphasize that he has less time to spend in these endeavors.

Counseling

There are many situations occurring in a high-risk nursery in which parents are faced with the harsh reality



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of birth defects, marked prematurity, or the death of a newborn. Parents need to be able to grieve, to express their disappointment, anger, feelings of inadequacy and hopelessness. The normal crisis of having a baby is compounded by these medical complications. The parents frequently struggle with feelings of guilt and failure in not having produced a healthy infant. In the case of a premature infant, they need to be able to express their ambivalent feelings (fear that if the baby lives, he may be handicapped, etc.) and to recognize that these feelings are normal. Some parents also need help for several weeks after the death of a newborn and our social worker has been involved in this kind of grief counseling. One such study done in 1973-1975[6], in another institution, identified a situation in which the parents were faced with the death of a neonate and received no help. In this particular instance one of the mother's previous pregnancies had terminated in the death of a child. For several weeks following the second death, the angry and disturbed father telephoned the high-risk hospital expressing suspicions about the actual cause of his infant's death and to report the mother's continuing inability to deal with her loss.

In this situation, there was no social work intervention. The family indeed had "fallen through the cracks" of the system and the parents' lack of progress in dealing with the baby's death raised doubts about their capacity to attempt parenthood in the future. Marital and other problems may emerge at this time and a listening, helpful ear and the ability to make these parents feel understood is vitally important. Helping parents to identify and sort out their varied feelings and emotions, and to work through their grief through the free expression of feelings is a very important component of the social worker's role in our particular setting. In helping parents deal constructively with this difficult time, they are more able to renew their relationship with themselves. It is our feeling that each parent who has a critical newborn must be seen by the social worker.

Referral to Other Agencies

It has been the social worker's responsibility to make referrals to health departments, both locally and in surrounding counties. For the close monitoring and follow-up of situations which appear to need continued observation and assistance, home health referrals are made when indicated but the social worker also makes personal contact with the health department social worker to actively involve her in the follow-up for the high-risk newborn. A lot of referral work involves an ongoing close tie with child welfare (Department of Pensions and Security). In many situations in which parental competency cannot be satisfactorily assured prior to discharge, D.P.S. is asked to closely monitor the home. In some situations babies have been removed from parental custody because of serious intra-family conflict, inadequate home environment, or obvious abuse/neglect. In these cases D.P.S. and the high-risk social worker work very aggressively and in cooperation with the juvenile court to place babies directly in foster home care. Appropriate referrals for birth defects and other disabilities are made such as to Crippled Children's Services and to a local program which provides early evaluation of neuro-motor development.

Another very important task of our social worker is related to financial aid. We have referred babies whose birth defects are considered to be totally disabling to Social Security for automatic retroactive medical coverage (SSI Disability). Initially there was some concern whether this individual's salary could be justified in the nursery.

Within the first four months of being assigned to the nursery, she was successful in directing parents to agencies such as SSI which resulted in revenue doubling her yearly salary being made available to cover neonatal intensive care services. Without this energetic seeking of any and all available funding, the hospital would have incurred even greater indebtedness. Many families do not know this service is available, so it is this knowledge of community resources which is a very important component of the social worker's role. Parents who are eligible for financial assistance through the Welfare Department are also referred when appropriate.

The social worker has made use of the hospital's charity resources for certain parents who do not qualify for assistance from any other source and has been instrumental in steering people to that resource when indicated. Since our community hospital operates at a loss in the area of the high-risk nursery (not unlike many other high-risk nurseries), any assistance with financial reimbursement is a much needed service.

Sharing with the Medical Team

The social worker is an important member of the overall health care team, the family practice residents, and the medical students. She participates in making rounds with the neonatologist, so that she may be better informed as to the condition of the babies and also so that she can provide verbal information as to social problems and discharge planning. She checks charts regularly seeking "red Flags" as to more serious problems.

She visits the rooms of all high-risk mothers daily or makes contact with them in the nursery to ensure they know and understand their baby's status. She places social service notes in the newborns' charts and adds valuable information that assists the "team" regarding serious problems with the family such as financial limitations, family conflicts, marital status, alcoholism, inadequate housing, and lack of transportation.

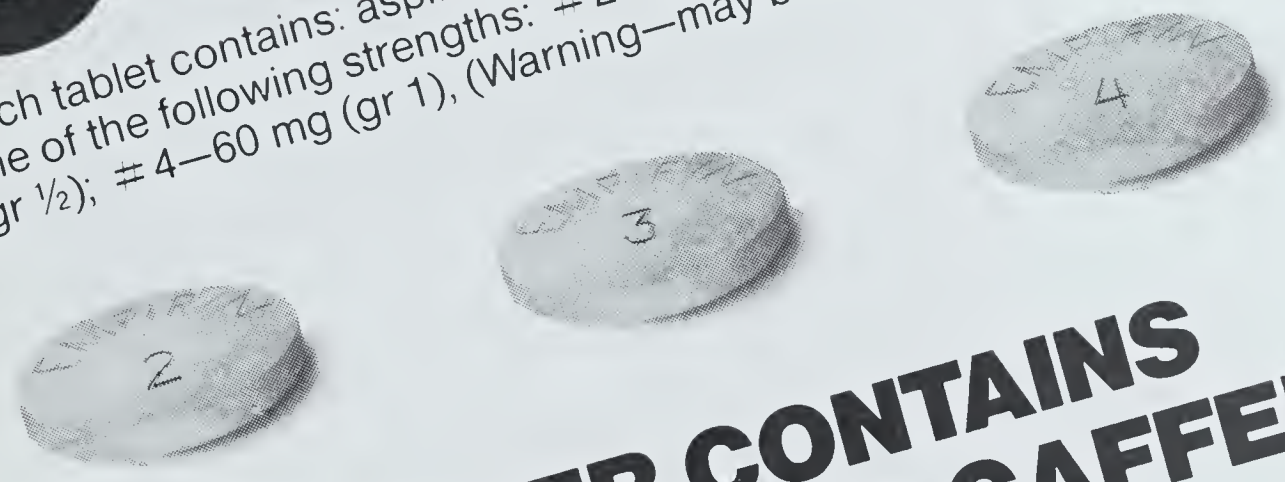
Patient staff Education Research

The social worker has been actively involved in promoting and assisting with childbirth control classes which are held three times a week for all obstetrical patients with special emphasis on teenage mothers. A

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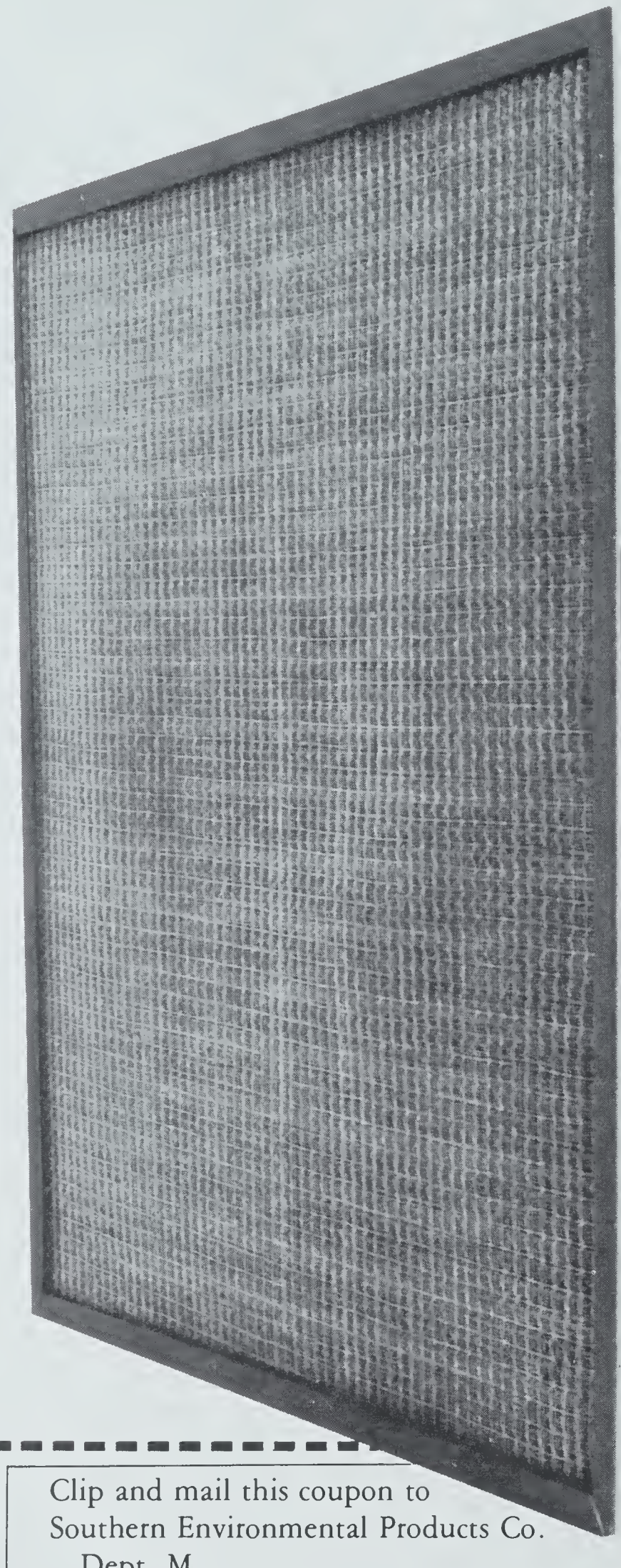
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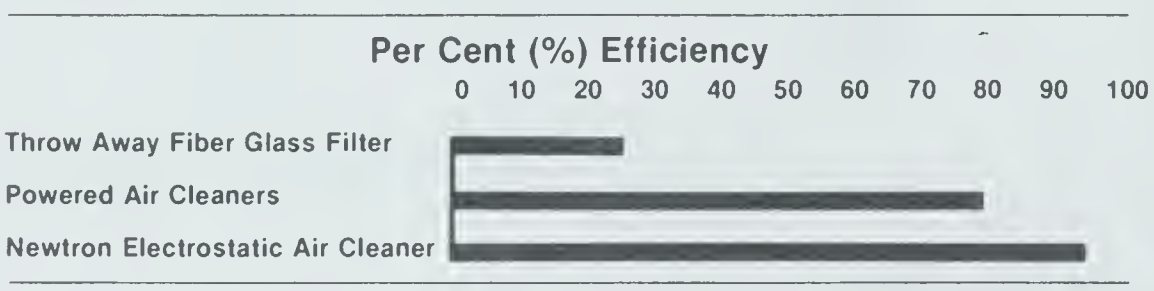
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videotape is used together with samples of different types of birth control devices which are discussed. She also has conducted inservice sessions for OB and Nursery staff regarding her role and has been asked to supervise other sessions related to the emotional needs of parents.

Another recent service in which our social worker has been aggressively involved is the establishment of a local chapter of The Compassionate Friends, a nationally organized self-help group for bereaved parents. Due to her work with grieving parents who mourn the loss of a child through miscarriage, stillbirth and infant death, our social worker felt that such a group would be beneficial in our community. The group is open to any bereaved parent regardless of the age of the child at the time death occurred. Our social worker is now serving that group as a professional advisor and meets with them twice monthly.

The social worker continues to work closely with our perinatal outreach worker to further improve the level of care for high-risk infants and families. A new Parent-Infant-Staff Interaction Sheet has been developed and data from this sheet will be collected by the social worker to better assess the need for close follow-up after discharge and to look at the percentage of child abuse and neglect in infants who are readmitted to the hospital. Other research and satistical data will be developed in the future in conjunction with the goals of our overall team.

Discussion

The social worker has added a new and valuable dimension to the overall care and direction of the high-risk nursery at the Druid City Hospital. The scope of her work has been large and varied. Her original job description resembles only partially what she presently does. It has not only included direct service to families, but an active role in the planning and decision making for comprehensive perinatal services, i.e., discharge appointments to Health Department clinics, visiting home health nurse, or D.P.S. visits to the home. She has been received with such enthusiasm and need that this has led to changing her status from part-time to full-time, which is reflective of the importance with which she is viewed and usage by nurses and physicians. The growth of this specialty "person" within the high-risk nursery should be viewed with great interest by social work, allied professions, and all physicians working in a high-risk nursery in the years ahead. It would appear that intensive care nurseries will soon find the social worker to be an essential and integral part of the health care team.

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ETHICS FOR THE MEDICAL FAMILY

Ethics, "The discipline dealing with what is good and bad and with moral duty and obligation,"* has been valued for centuries by the physician. Through these centuries, physicians have lived by the Code of Ethics of Hippocrates, proclaimed by him twenty-three hundred years ago.

Although we, as auxiliary members, have never had a verbal creed, we always have had a silent one: loyalty and service to the profession. We should never discuss medical cases, whether it be a patient of one's spouse, or one under the care of some other doctor. Our reticence increases confidence in the doctor, and tends to prove to the questioner that doctors live up to their code of ethics in maintaining the privacy of their patients.

We should allow, unfailingly, the doctor to do the prescribing. We should have the highest respect for the profession, be loyal to it, and guard its reputation. If some member of the medical society seems not to be measuring up to his oath, we should allow the society to be the sole judge and jury. It is unethical for us to make derogatory remarks about any doctor or to suggest another doctor, leading a layman to doubt that proper medical care is being given.

We may never allow ourselves to be other than kind, considerate, patient, and understanding, no matter how busy we are, or how trying the situation may be.

The part we play in civic organizations and in community affairs will reflect credit or discredit, depending upon the manner in which we represent the profession. It is not unethical to discuss with the laity the objectives and problems of medicine and what is being done to meet these problems, but fundamentally we should be secure in the knowledge that we are well informed on the subject.

As an organization, it is important for doctors' spouses to adhere strictly to the policies the doctors set up for us through our advisory councils. We should never venture a new undertaking without their approval.

Ethics for the medical family, of the past and of the present, have been inherited by us and yet are contemporary in scope, guiding and inspiring our thoughts and actions.

Mary

*Webster's *Seventh New Collegiate Dictionary.*

Physicians Placement

The Medical Association of the State of Alabama maintains the Physicians' Placement as a service to the medical profession in the state of Alabama. Opportunities for practice in Alabama will be published and will be distributed to physicians making inquiry. Physicians wishing to establish practice are invited to submit a resume to be kept on file with the Association. For further information write: Mr. Emmett Wyatt, Executive Assistant, MASA, P.O. Box 1900-C, Montgomery, Alabama 36197 or call (205) 263-6441.

LOCATIONS WANTED (Physicians interested in locating in Alabama)

ANESTHESIOLOGY: Age 56; Universidad de Chile, 1954; American Board Eligible; seeking practice in institutional in a town with a population over 15,000. Available November 1980. LW-070180.

* * *

FAMILY PRACTICE: Indiana University, 1978; seeking practice in multi-specialty group, single specialty group or partnership. Available July 1981. LW- 40262.

* * *

FAMILY PRACTICE: Case Western Reserve, 1967; National Board Certified; seeking practice in school health, industrial or institutionally based. LW-40280.

* * *

FAMILY PRACTICE: University of Mississippi, 1978; seeking practice in single specialty group, partnership or multi-specialty group. Available September 1981. LW-40355.

* * *

FAMILY PRACTICE: University of Alabama, 1978; National Board Certified; seeking practice in single specialty group, partnership or multi-specialty group. Available July 1981. LW-40315.

* * *

GENERAL PRACTICE/EMERGENCY MEDICINE: University of Tennessee, 1960; seeking practice in solo, emergency room, academic, multi-specialty group, industrial or administrative. Available September 1980. LW-40149.

* * *

OBSTETRICS AND GYNECOLOGY: University of North Carolina, 1974; seeking practice in solo, partnership or single specialty group. Available August 1981. LW-40112.

* * *

OCCUPATIONAL MEDICINE/FAMILY PRACTICE: University of Miami, 1971; American Board Certified in Aerospace Medicine; seeking practice in industrial, administrative or school health. Available July 1980. LW-40364.

* * *

PATHOLOGY: Age 37; Meharry, 1974; seeking practice in assistant or associate, institutional or group. Available July 1981. LW-110579. (See LW-110679)

* * *

PEDIATRICS: Creighton University, 1977; seeking practice in solo, partnership or academic. Available July 1980. LW-40265.

* * *

PEDIATRICIAN/GENERAL PRACTICE: Age 31; University of Arizona, 1975; American Board Eligible; seeking practice in institutional or group preferably in the southern area near Mobile. Available July 1981. LW-110679. (See LW-110579)

* * *

SURGERY, GENERAL: Age 29; University of Alabama, 1976; American Board Eligible; National Board Certified; seeking practice preferably in the northeastern or southwestern section with a population of 10,000-25,000. Available July 1981. LW-070280.

EMERGENCY MEDICINE: Age 31; University of Mississippi, 1979; seeking practice in specialty in a town with a population of 25,000-100,000. Available for practice July 1980. LW-050180.

* * *

FAMILY PRACTICE: Age 49; Emory, 1955; American Board Certified in Family Practice; seeking practice preferably in an out-patient community health clinic with some hospital emergency room work in the Northeastern part or mountainous region 5,000 to 25,000 population. Available June 1980. LW-030180.

* * *

FAMILY PRACTICE: Age 51; Cornell University, 1954; American Board Certified; seeking practice in single specialty group, research or institutionally based. Available July 1980. LW-20020.

* * *

GENERAL PRACTICE: Age 27; Wisconsin, 1977; American Board Eligible in 1980; seeking practice in industrial, institutional or private or government clinic preferably in the Birmingham area. Available July 1980. LW-020680.

* * *

GENERAL PRACTICE/INTERNIST/EMERGENCY MEDICINE: Age 31; Washington University; American Board Eligible in 1980; seeking practice in specialty, multi-specialty, general or emergency medicine preferably near Birmingham and/or Montgomery in a town with a population of 250,000 up to 1 million. Available July 1980. LW-020780.

* * *

INTERNAL MEDICINE: Age 32; University of Alabama. 1975; seeking practice preferably in the Mobile area in internal medicine. Available 1980. LW-010280.

INTERNAL MEDICINE: Age 33; Louisiana State, 1976; will be American Board Eligible in 1980; seeking practice in single specialty group, multi-specialty group, or partnership. Available October 1980. LW-20306.

* * *

INTERNAL MEDICINE/PULMONARY: Age 35; Prince of Wales, 1969; American Board Certified, seeking practice in general, specialty, associate or institutional in a town with a population of 10,000 plus. Available July 1980. LW-11029.

* * *

INTERNAL MEDICINE: Age 31; North Carolina, 1976, American Board Certified in Internal Medicine in 1980; seeking practice in general, including outpatient, in-patient and emergency room care preferably in a moderate to large city, southeastern area. Available in spring of 1981. LW-030380.

* * *

GYNECOLOGY: Age 57; Tufts, 1947; American Board Certified; seeking practice in specialty, assistant or associate or group preferably in the metropolitan or suburban areas. Available immediately. LW-060180.

* * *

OBSTETRICS AND GYNECOLOGY: Age 29; University of Virginia, 1976; American Board Eligible; seeking practice in specialty preferably in the Southern part in a town with a population of 10,000-25,000. Available September 1980. LW-050380.

* * *

OBSTETRICS AND GYNECOLOGY: Age 33; University of Texas, 1973; American Board Eligible; seeking practice in single specialty group, multi-specialty group or partnership. Available August 1980. LW-21032.

PHYSICIANS WANTED (Opportunities for Practice)

FAMILY PHYSICIAN—Board Certified, F.P. Residency-trained Family Physician wants same to associate with him in 1981. Prime site in growing residential area of Mobile. Expectations for future expansion to 3-4 person F. P. group. PW-050280.

* * *

NEARLY IDEAL SETUP FOR TWO FAMILY PRACTITIONERS—Fully equipped office available. Excellent building, ample parking. Fifty-year doctor retiring. Prosperous town, junior college and excellent schools. Recreation facilities unexcelled. Accredited hospital. Must be fully investigated to be appreciated. PW-060180.

* * *

INTERNIST—Desires part time weekday or weekend position in Birmingham or other North Alabama City. PW-060480.

* * *

FAMILY PRACTITIONER—Existing multi-specialty clinic seeks physicians for new satellite clinic in Butler, Alabama. First year guaranteed salary with excellent benefits. Partnership opportunity. PW-050180.

FAMILY PRACTITIONER—to associate with Family Physician. An excellent opportunity to establish a group in a new well equipped building located in the growing area of Mobile, Alabama. PW-020180.

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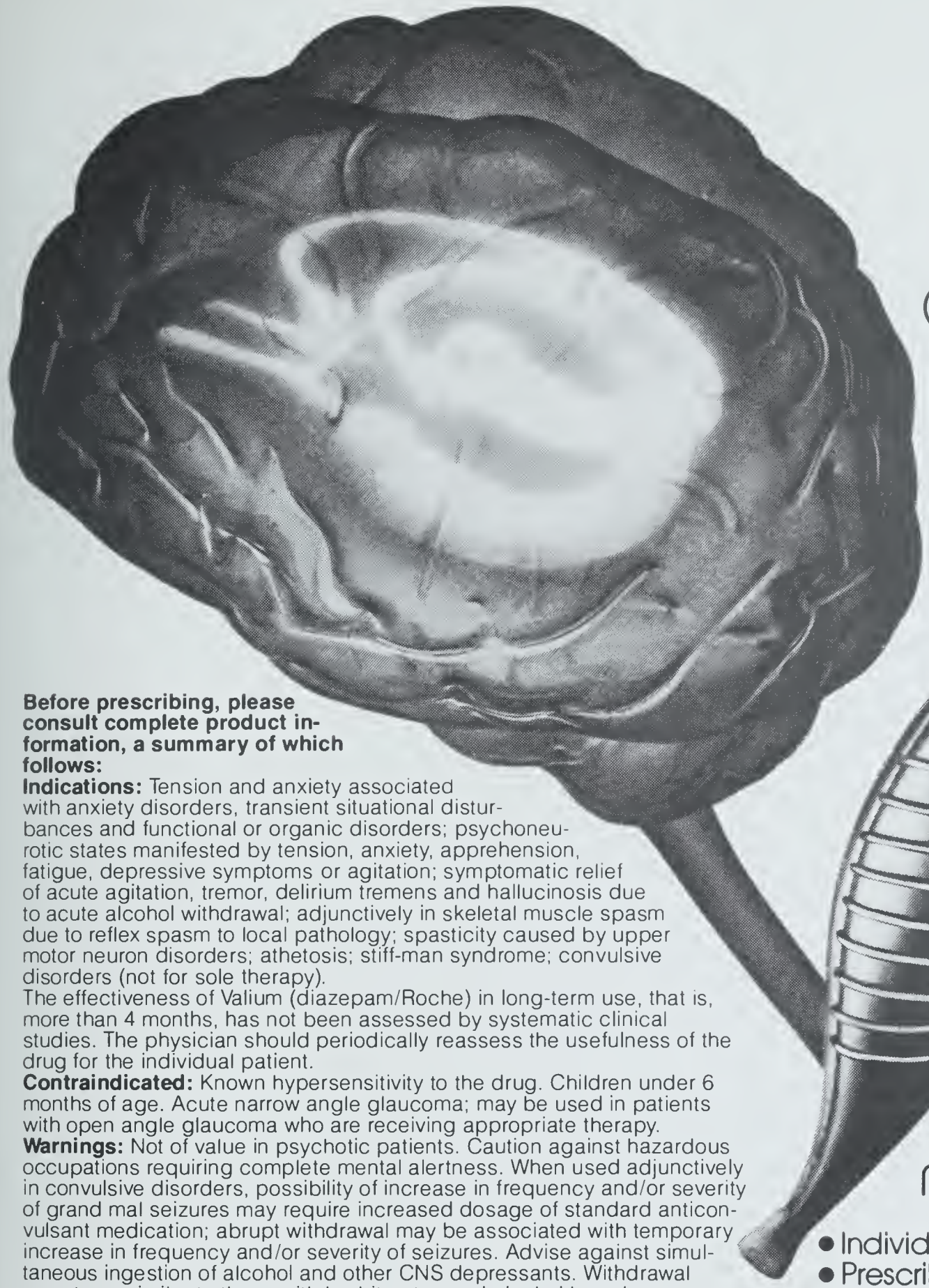
INTERNIST—Association with two Internists in hospital and office practice in Montgomery, Alabama. Hospital well equipped with new CCU, telemetry, etc. Board certified preferred. Terms liberal. PW-060280

* * *

ORTHO, OB-GYN, UROLOGY—Excellent opportunity available with six (6) F.P.'s and one (1) General Surgeon. Office available. Super hunting, fishing and boating. One hour to Gulf Shores Beach. Diversified industry. Town approx. 7,000 with trade area approx. 15,000. PW-060380.

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FAMILY PRACTICE, INTERNIST, SURGEON — Multi-Specialty Group new forming adjacent to hospital. Need Family Practice, Internist, Surgeon. Central Alabama city of 40,000 trade area. Fastest growing area in south. Accredited schools, balanced economy, cultural and recreational opportunities galore. Area lakes for fishing, camping, water sports. Hunting for deer, turkey, dove, quail, squirrel. City of 200,000 15 miles away via Interstate. PW-020480.



Only Valium® (diazepam/Roche) is indicated in anxiety and tension states and as an adjunct in the relief of skeletal muscle spasm

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Tension and anxiety associated with anxiety disorders, transient situational disturbances and functional or organic disorders; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
Supplied: Valium® Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

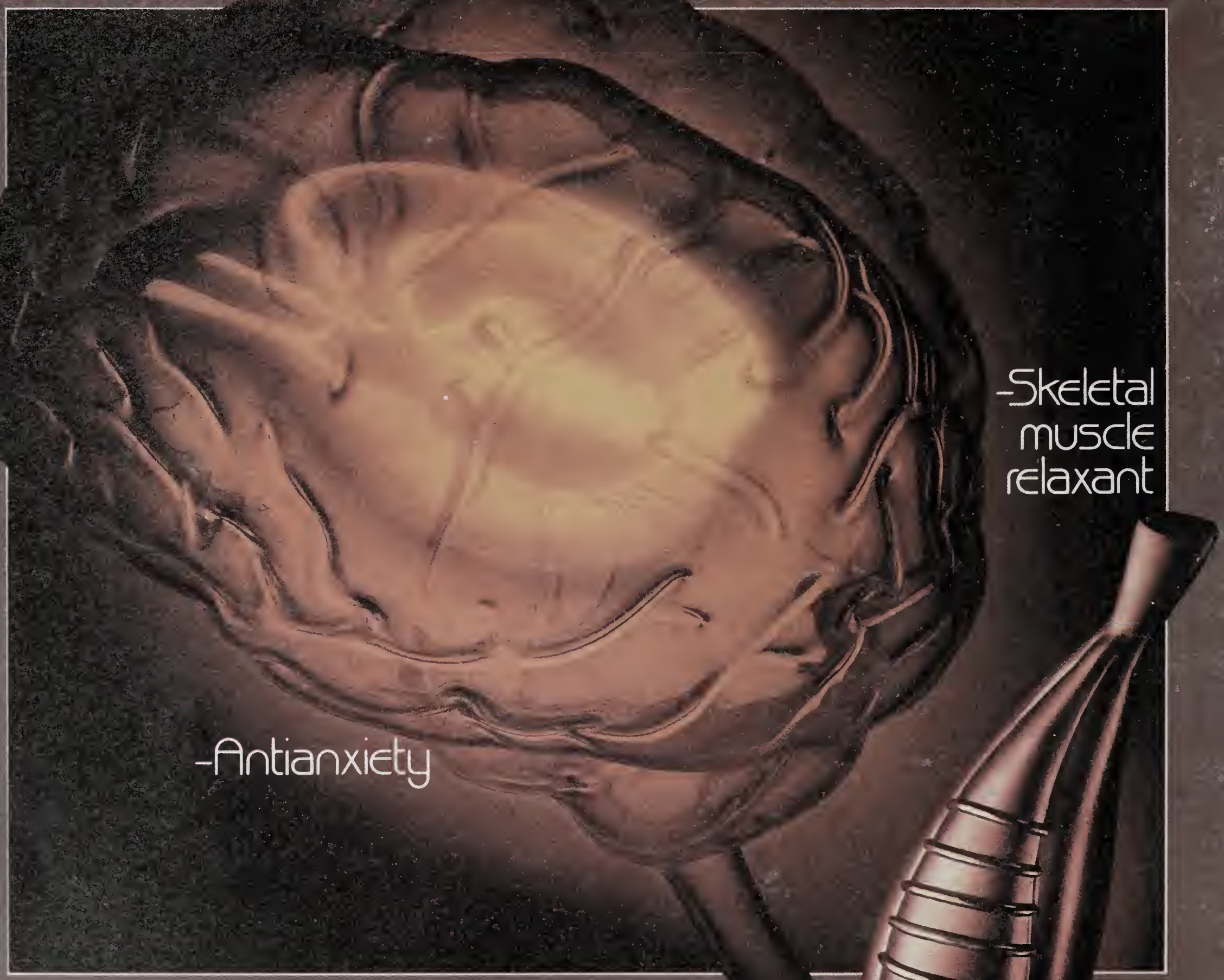
General guidelines for the prescribing and appropriate use of minor tranquilizers

- Individualize dosage for maximal beneficial effect.
- Prescribe the specific quantity needed until the next checkup period, schedule frequent, periodic reexaminations to monitor results of therapy.
- Establish treatment goals and gradually discontinue medication when these have been met.
- Avoid prescribing for individuals who appear dependency-prone or whose histories indicate the potential for misuse of psychoactive substances, including alcohol.
- Caution patients against engaging in hazardous occupations requiring complete mental alertness such as operating machinery or driving.
- Advise patients against the ingestion of alcoholic beverages while undergoing therapy with minor tranquilizers.
- Counsel patients to follow label directions, keep medication out of children's reach, and dispose of unused or old medication.
- Caution patients against giving medication to others.
- Avoid abrupt cessation of extended therapy by tapering dosage before discontinuing medication.

ROCHE®
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Only Valium® (diazepam/Roche)
has these two distinct effects

mind & muscle



2-mg, 5-mg, 10-mg
• scored tablets

Valium® IV
diazepam/Roche

Indicated in anxiety and tension states and as an adjunct in the relief of skeletal muscle spasm

Please see summary of product information on preceding page.

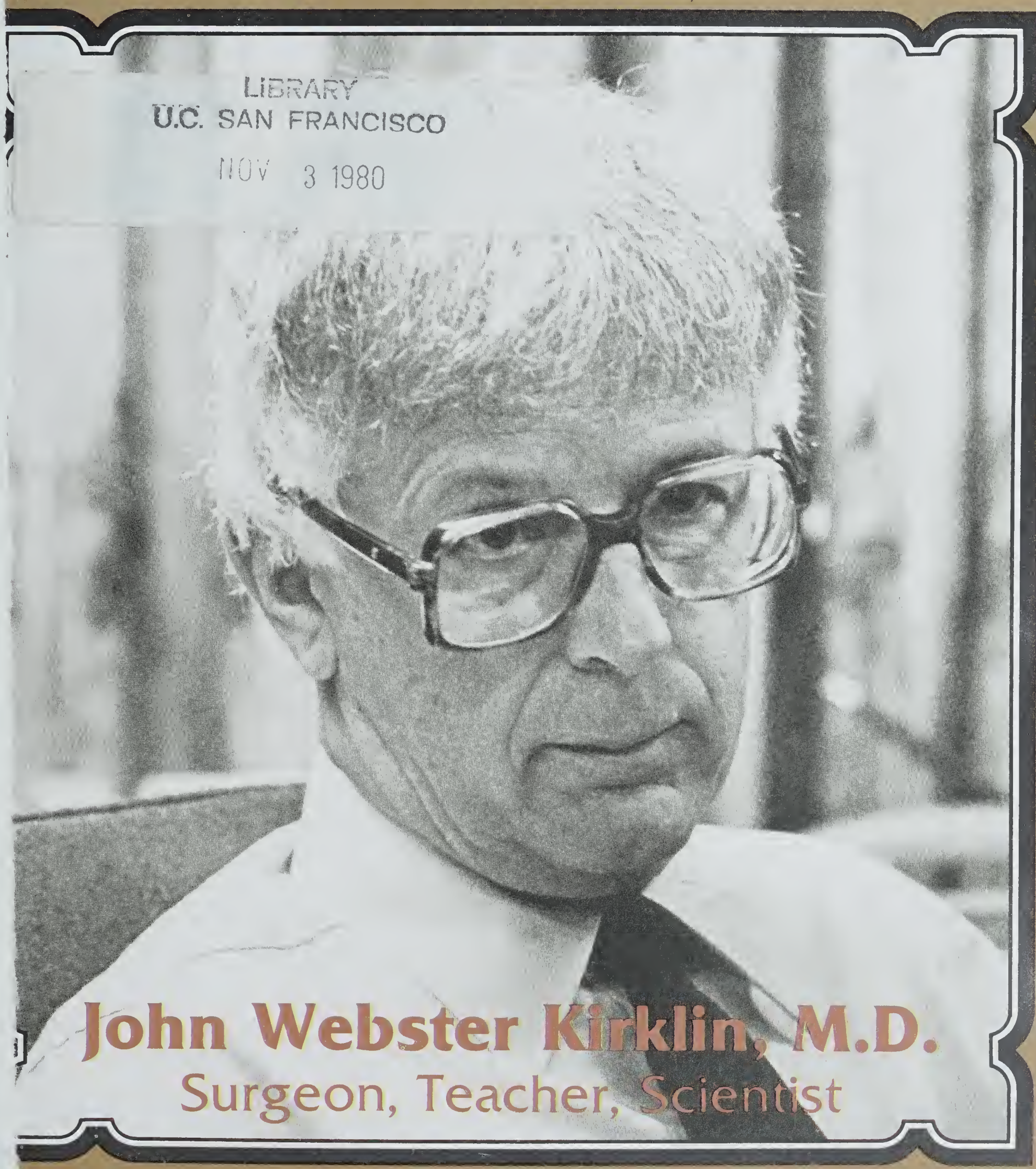
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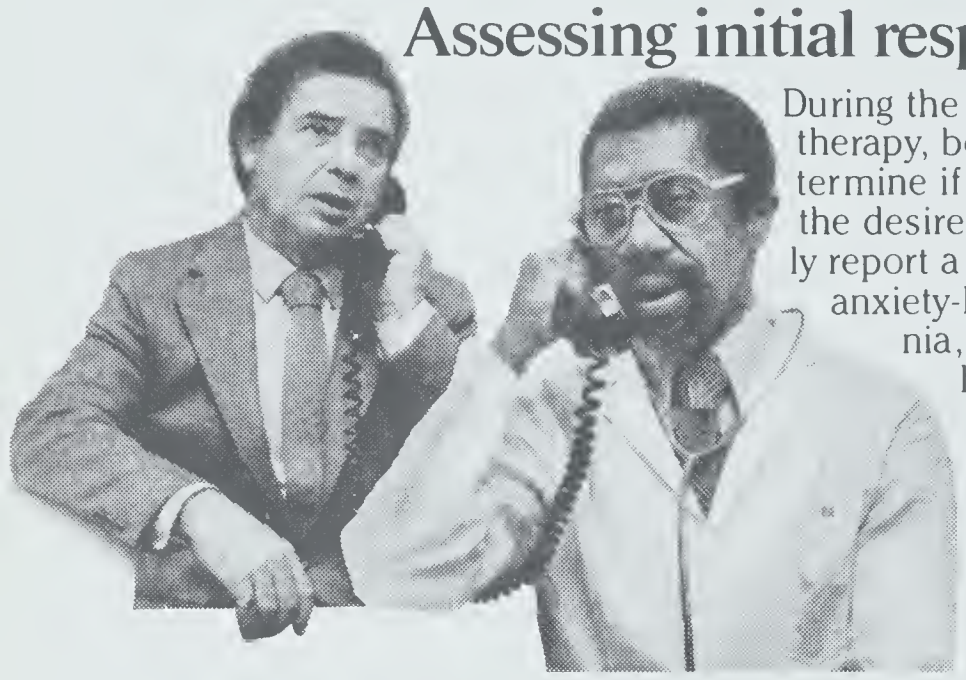


John Webster Kirklin, M.D.

Surgeon, Teacher, Scientist

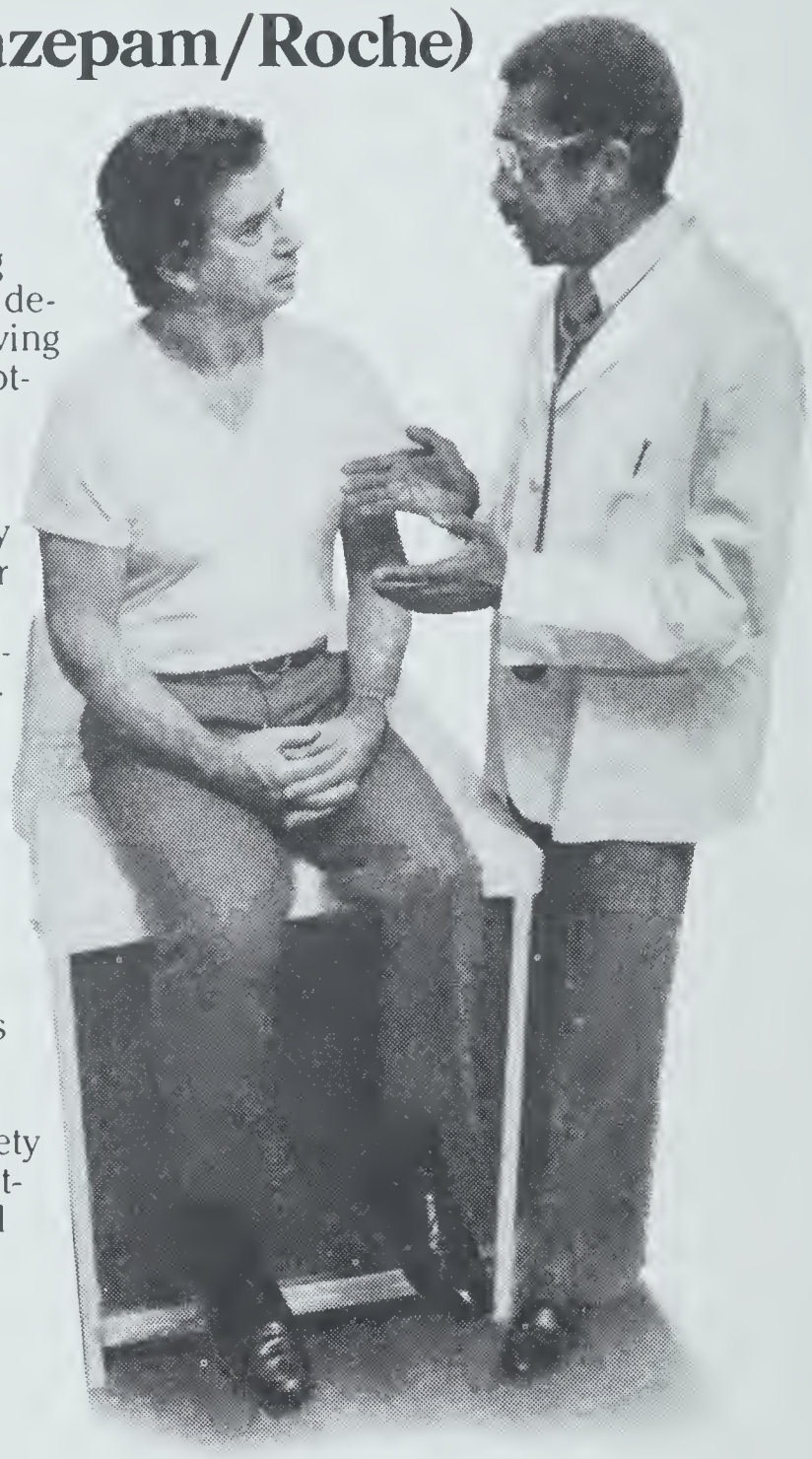
Aspects of management

Monitoring patient response to Valium® (diazepam/Roche)

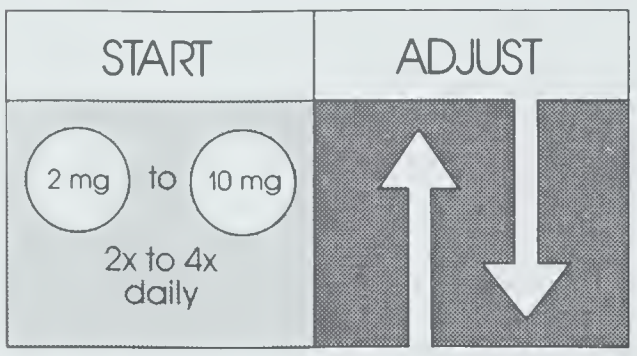


Assessing initial response to therapy

During the first follow-up visit after initiating therapy, both physician and patient should determine if Valium (diazepam/Roche) is having the desired effect. Most patients will promptly report a feeling of relaxation and relief of anxiety-linked symptoms such as insomnia, headaches, palpitations and hyperventilation. You will probably observe that the patient is calmer and more relaxed. If, however, patient response does not measure up to expectations, a reevaluation of the patient's profile with modification of the dosage regimen should be considered.



Making dosage adjustments



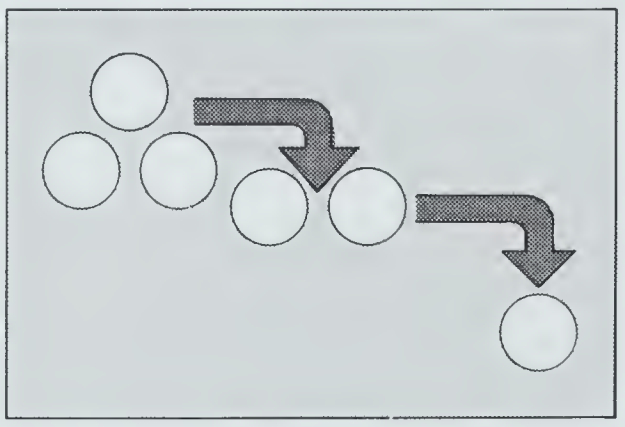
With any psychoactive medication it is good medical practice to initiate therapy at base dosage levels and titrate to the patient's needs. With Valium, experience has shown that 5 mg t.i.d. is usually sufficient although some patients with severe or persistent anxiety may require higher dosages initially. In geriatric or debilitated patients, the recommended dosage is 2 to 2½ mg once or twice daily. When anxiety fluctuates, as is common with most patients, the dosage may be adjusted as needed during the course of therapy; three strengths in scored tablets give you unmatched flexibility and simplicity in individualizing dosage.

Evaluating progress toward therapeutic goals

SET GOALS						
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

At the beginning of therapy it is now common practice for both physician and patient to establish treatment goals and to estimate the amount of time needed to achieve them. Then the patient knows what to expect and when to expect it. Some physicians find that compiling a checklist of presenting symptoms and complaints is useful for assessing the patient's response from visit to visit. In this way, progress toward attainment of the therapeutic goal is reviewed at regular intervals. As patients feel their symptoms abate and begin to develop insight into the sources of their anxiety and psychic tension, the checklist can be expected to dwindle.

Discontinuing pharmacologic intervention



When you decide to discontinue therapy, tapering dosage is good medical practice. Although rarely necessary after short-term treatment with Valium, gradual dosage reduction is advisable for patients who have been on extended therapy. This gradual discontinuance should preclude either recurrence of pretreatment symptoms or development of untoward side effects. Symptoms of withdrawal have almost always been associated with abrupt discontinuance of therapy at higher dosages taken continuously over long periods of time.

ROCHE® See the following page for a summary of product information.

2-mg, 5-mg, 10-mg scored tablets

Valium® IV

diazepam/Roche

An Important Adjunct to Your Treatment Program for Excessive Anxiety

Valium®(diazepam/Roche) Ⓝ

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Tension and anxiety associated with anxiety disorders, transient situational disturbances and functional or organic disorders; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).
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From the Executive Director

Why the New Ethics?

Codes of ethics, it has been wisely said, are very much like simple locks. They are intended to deter honest people under temptation. Anyone truly intent on breaking either can find a way to do so.

But the 1980 revision of the AMA's *Principles of Ethics* was on the side of prudence. The open secret behind most of the revisions was, of course, legal attack. Anything even remotely resembling "restraint of trade" is a sitting target these days for the Feds—who, in their endless search for villainy, have chosen to assault the very citadel of professionalism.

If you read the new *Principles* as an adversary might, you will find they are as elusive as quicksilver if you sought to prove by them alone that doctors were, *ipso facto,* guilty of restraining their brethren in the health care "trade." You would have to prove each case on its merits, a far more difficult job.

The necessity for all this is galling to everyone, but so long as the public sector and the private sector remain in a state of more or less perpetual belligerency, the sad reality is inescapable.

How this sorry state of affairs came to pass will presumably be included in a new and ambitious study to be undertaken by the prestigious Harvard School of Business, which will address itself to the very corrosions evident here: What happened in the past 50 years or so to make government the enemy of private enterprise and private initiative?

That this is the case is doubted by very few these days. Not only the professions but major corporations spend much of their time and talent in the endless chess game with the government in all its branches—legislative, judicial, executive. If they don't, they are soon checkmated.

It has not always been this way; it only *seems* so—Time whereof the memory of man runneth not to the contrary, in the words of the great English legal commentator, Blackstone.

Few today, save anarchists, question the role of government at all levels in keeping the peace, in acting as the impartial referee, in preserving freedom in all its aspects.

Most of us accept the fact that our freedom to swing our arms, in the classic illustration, ends where our neighbor's nose begins. We know that in an orderly society laws are necessary and government is, by definition, the enforcer.

But government has left that role. It has assumed the role of advocate and participant, thus distorting every previously free sector it enters.

Continued on Page 4

Ethics In A Changing World



C. A. Lightcap, M. D.
President

The recent revision in the AMA **Principles of Ethics** had nothing to do with the changing ethics of physicians. They remain as they have been, largely unchanged in broad principle down through the centuries.

What **has** changed in the legal climate under which physicians practice. Had the old **Principles** been allowed to remain, they would have been targets of litigants seeking to prove that doctors, by their very ethics, restrain free trade in the medical marketplace.

It is unfortunate that we have reached this point in our history, since no other profession has defined its ethical guidelines as clearly as has ours. Twenty five hundred years before Christ, the Code of Hammurabi set out certain requirements for physicians' conduct. During the 5th Century B.C., of course, the Oath of Hippocrates appeared, and was long regarded as a concise statement protecting the rights of patients and appealing to the better instincts of physicians.

However, it was not until 1803 that Thomas Percival published the first detailed codification of medical ethics. Percival's code was adopted by the AMA when it was founded in 1847. Major revisions were made in 1903, 1912, and in 1947.

In 1957, the **Principles** were reduced to a preamble and ten sections. With that version, the **Opinions and Reports of the Judical Council** became all-important, because simple, broad statements, couched in general language, are subject to greater latitude of interpretation.

As the decade of the 1980s begins, the adoption of the new **Principles** does not mean, as some media commentators have wrongly concluded, that doctors no longer care about ethics. It means simply that the threat of legal action makes them keep their ethics largely in their minds and hearts.

In the final analysis, that is the only place any code of ethics can really be effective. Any ethical principles are, almost by definition, quite close to religion. And no one can force a religious conviction on anyone.

What it all means, however, is that physicians are, individually and collectively, under a heavier burden than ever in history to conduct themselves ethically in all their dealings with patients and with each other.

C. A. LIGHTCAP, M.D.

Executive Director—*continued from page 2*

If the results of all this were public good, it could be argued that the ends justify the means. But the public suffers, thereby eliminating even that rationale.

The new *Principles* were made necessary by this condition of American life, the rampant intrusions of government by law, decree and judicial fiat.

But the *Principles* are nonetheless entirely sufficient for good men, which most physicians are. They place on the individual doctor the ethical burden of his high calling, eliminating specific strictures which could be twisted by the legal eagles into something sinister.

Lon

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Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence.* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy*: Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children*: Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular*: Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System*: Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal*: Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic*: Urticaria, rash, ecchymosis, erythema, *Endocrine*: Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System*: Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous*: A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

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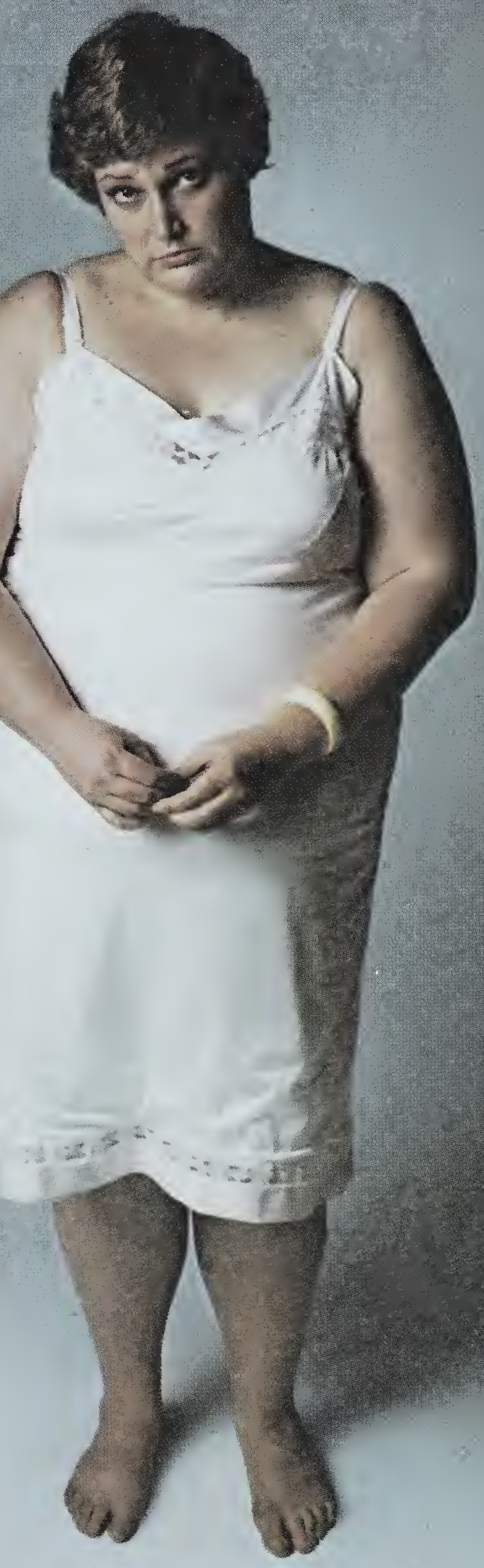
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A useful short-term adjunct in an indicated weight loss program.

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The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

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*Studies have shown that obesity is associated with an increased incidence of hypertension, symptomatic heart disease, adult-onset diabetes, and other diseases.

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For prescribing information see opposite page.

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*Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

1. Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.

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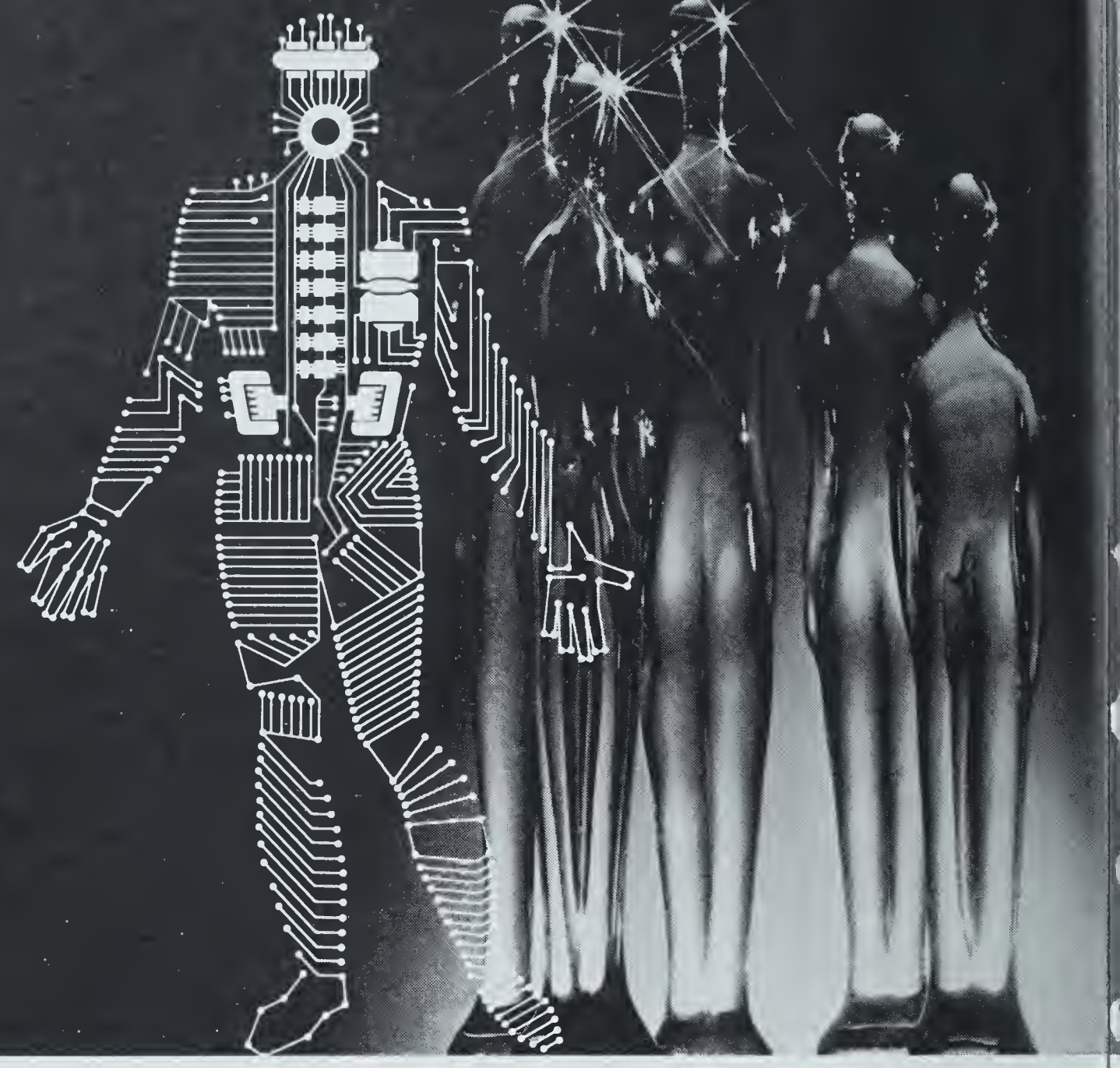
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- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefit from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2 – 0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

Catapres®
(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an antihypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.
Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.
Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of spontaneously occurring retinal degeneration in albino rats treated for 6 months or longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness and sedation. Constipation, dizziness, headache, and fatigue have been reported. Generally these effects tend to diminish with continued therapy. The following reactions have been associated with the drug, some of them rarely. (In some instances an exact causal relationship has not been established.) These include: Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormalities in liver function tests; one report of possible drug-induced hepatitis without icterus and hyperbilirubinemia in a patient receiving clonidine hydrochloride, chlorthalidone and papaverine hydrochloride. Weight gain, transient elevation of blood glucose, or serum creatine phosphokinase: congestive heart failure, Raynaud's phenomenon; vivid dreams or nightmares, insomnia, other behavioral changes, nervousness, restlessness, anxiety and mental depression. Also rash, angioneurotic edema, hives, urticaria, thinning of the hair, pruritus not associated with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryness, itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecomastia, weakly positive Coombs' test, asymptomatic electrocardiographic abnormalities manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished or absent reflexes and vomiting followed the accidental ingestion of Catapres (clonidine hydrochloride) by several children from 19 months to 5 years of age. Gastric lavage and administration of an analeptic and vasopressor led to complete recovery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-minute intervals usually abolishes all effects of Catapres, (clonidine hydrochloride) overdosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 mg (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. Also available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.
For complete details, please see full prescribing information.
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John Webster Kirklin, M.D.

Surgeon, Teacher, Scientist

By Wm. H. McDonald

John Webster Kirklin, M.D., Mayo Clinic's reluctant gift to the University of Alabama Birmingham Medical Center 14 years ago, was present at the creation of open heart surgery.

When he began his surgical career in 1950, as he has recorded, Dr. Alfred Blalock had established the value of palliative operations for the tetralogy of Fallot. Potts had devised a technique that could be used for aorto-pulmonary anastomoses in infants. Sellors and Brock in London had utilized closed infundibulectomy and pulmonary valvotomy for a palliation of these patients.

Dr. John Gibbon of Philadelphia had already reported his epic-making experiments with cardiopulmonary bypass. Yet, in spite of all this, as Dr. Kirklin wrote in his introduction to the Tetralogy of Fallot, *by 1952 most of the surgical world had become disenchanted with the clinical usefulness of heart-lung machines. Undismayed, Gibbon had pushed his own efforts to such an extent that IBM had put a satisfactory machine in his hands in 1952.*

At about the same time, Dr. Kirklin and his colleagues at Mayo Clinic decided to learn to build equipment like his. After laboratory study, they proceeded with these techniques to human intracardiac surgery.

They had just begun their work at Mayo when, in 1953, Gibbon performed the first successful open intracardiac operation in man utilizing cardiopulmonary bypass with a heart-lung machine. Bjork and Senning in Sweden were working with pump oxygenators of different types.

In 1954, Lillehei and Varco, 90 miles from Kirklin and colleagues at Mayo, electrified the surgical world by beginning a series of successful operations within the human heart, utilizing another human being as the oxygenator in the technique of cross-circulation.

Just 25 years ago, on March 23, 1955, Kirklin et al at Mayo did their first intracardiac operation using a heart-lung machine. Two days later they performed another.

*The first series of successful intracardiac operations using the pump-oxygenator had begun. The surgical world again took encouragement from the possibilities of the machine. Cardiac surgery had finally dawned.**

*This brief history, with a few editorial alterations, is substantially as written by Dr. Kirklin in the mentioned work.

On the surgical techniques he has developed—

". . . Surgery for the tetralogy of Fallot is now safe and reproducible. It is therefore teachable. I recognize that the techniques and concepts of others may be different from our own and may give results that are as good. Yet I am confident that the concepts and techniques reflected in this monograph, carefully learned and carefully followed, will result in excellent results from the surgical treatment of tetralogy of Fallot in the hands of any surgeon who wishes to apply them."

—INTRODUCTION, THE TETRALOGY OF FALLOT, FROM A SURGICAL VIEWPOINT, KIRKLIN AND KARP.

On the common cause of medicine—

"Through the usual scientific channels, all of us have pooled our knowledge in such a way that we have built upon the shoulders of each other."

—IBID.

Some 10,000 operations later, Dr. Kirklin sat in his comfortable office recently and recalled how it was. (A blackboard on the wall still contained some of the scribbled hieroglyphics of the logic systems he uses.) Dr. Kirklin told his interviewer:

"During 1955 our mortality rate was high for this operative procedure (repair of tetralogy of Fallot in children). We were discouraged by our inability to make most of these patients live."

Mortality in these "blue babies" was 50% or higher in 1955, Dr. Kirklin recalled. Within five years it had fallen to 15%. By 1970 it was around 8%. Today, on his service at the Birmingham Medical Center, it approaches 0% overall and is never higher than 4%.

Similarly, mortality for coronary bypass grafting in the past two years under Dr. Kirklin is about .7%—lower than mortality in University Hospitals from gall bladder removal, and similar procedures, he says.

If today open heart surgery is fairly common in the world, it is well to remember that less than a quarter of century ago it was being done at only two places in the world—at Mayo, with Kirklin and colleagues, and at the University of Minnesota, two little towns 90 miles apart.

In 1980, Dr. Kirklin is as filled with the excitement of his challenging field as ever. If anything, he has increased his pace of learning, teaching, writing, and has even managed to synthesize some of his tutorial philosophy from successful mentors in fields other than medicine.

There is, according to Dr. Kirklin in a 1975 lecture, a marked similarity in training horses, quarterbacks, pilots and surgeons. That, in fact, was the title of his now famous lecture, when he shared the dais with his friend, Coach Bud Wilkinson, and his own current jumping master, Major Bela Buttykay, formerly of the Hungarian cavalry. (Dr. Kirklin bought a jumping horse and discovered, under the rigorous didactics of his teacher, Major Buttykay, something about himself in the new learning experience. He has also taken a recent interest in wines and in tennis, but these accounts must be left to his telling. He declined comment to his interviewer.)

Who is John Webster Kirklin, M.D., regarded by many as now *primus inter pares* in the ranks of pioneering heart surgeons still widening the horizons of medicine? Some of the answers may be found in his CV. In fact, Dr. Kirklin says, his publications tell it all *(q.v.)*.

Although his father was a doctor in Muncie, Indiana, Dr. Kirklin denies that he was much interested in anything while an undergraduate at the University of Minnesota except "the usual things college boys are interested in." He managed the football team, and turned to medicine, by his account, only in his junior year. (However, his Phi Beta Kappa membership there hardly supports his claim to being unmotivated.)

At Harvard, his interest in cardiology was aroused by Dr. Robert Gross, "who really started cardiac surgery in 1937 when he closed a patent ductus, the first person ever to do that successfully."

Dr. Gross looked like a surgeon sent up from central casting, Dr. Kirklin says—handsome, quiet, and "very stimulating" in 1938.

After Harvard Medical School (magna cum laude, 1942) Dr. Kirklin interned at the University of Pennsylvania Hospital in Philadelphia. It was wartime and under a "99 plan" then in effect his nine-month internship was followed by nine more months of training at Mayo Clinic before going into the Army.

For two years, at O'Reilly General Hospital, a neurosurgical center in Missouri, he was a neurosurgeon. Discharged in 1946, he returned to Mayo for his surgical training, then spent six months again with Dr. Gross in Boston, joining the staff of Mayo Clinic in 1950 as a surgeon. On September 1, 1966, he accepted the call to go to the University of Alabama.

Why Alabama, Dr. Kirklin was asked in a recent interview?—

"I'm not exactly sure. I've asked myself that sometimes. I had been in the business 16 years by then. We had been very successful in cardiac surgery at Mayo, and that's a very big and very wealthy and well endowed institution. It's been around a long time. It gave a new program every conceivable advantage. I guess I wanted to see if it was absolutely essential to be at the Mayo Clinic to have a first-class cardiac program and I had some ideas I wanted to try. But it was difficult to try them in an institution that was so successful and was so large and a little difficult to change.

"There were the basic ingredients here to build a good program not only in cardiac surgery but in general surgery. After Dr. Lyons (Champ Lyons, M.D.) died, most people in the department left and everyone assumed it was going to a catastrophe so I didn't have any dead wood around. With a little bit of luck and with some of the important ingredients there were here—you couldn't do anything without a few basic ingredients—I thought one could perhaps build a good program."

He had been persuaded, after several earlier contacts, to stop by on the way back from a meeting in Florida. A meeting with a few UAB Medical Center leaders took place at the Birmingham airport. Among those present was the late cardiologist Tinsley Harrison, M.D., who is said to have told the welcoming committee after the brief meeting, when doubt was expressed that Dr. Kirklin could be inveigled into accepting their offer, that it was just like wondering about a beautiful woman: "You'll never know unless you ask her."

They asked, formally, and Dr. Kirklin accepted.

Was it an act of institutional piracy?

"No, I don't think so," Dr. Kirklin said. "I think the moment has to be just right. Probably two years before or two years later I might not have been interested. I think it has to be the right moment in the institution's life and the right moment in the guy's life that makes it happen. I had had several very attractive opportunities a year or two before but I wasn't very interested.

On teaching surgeons—

". . . The resident must learn to think about alternatives to his plans, and about the times when he must improvise in a light-footed way to meet some unexpected development. The most critical and important part of the cardiovascular resident's learning is *in the operating room,* and this is where we try to be certain that he learns well and completely the thousand and one little details of operative cardiac surgery. This means endless hours of scrubbing with them, of searching for their wasted motions and helping them to get rid of them, of increasing their perception of tissue planes and insisting that they use them in their dissection, that they keep the operation moving forward, and so on, and so on, and so on. . . ."

—A LETTER TO HELEN, PRESIDENTIAL ADDRESS, 59th ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF THORACIC SURGERY, BOSTON, 1979

On the humanity of a surgeon—

"But after many years of cardiac surgery, and many tests and challenges from different operations, from patients, from colleagues, from difficult scientific and operational problems, and even more after too many deaths through the years that could not then be prevented, we tend gradually to become a little weary and in some small sense infinitely sad because of life's inevitabilities."

—IBID.

On the use of logic and probability in surgery—

"No doubt many other events, such as the behavior of populations, fracture of aircraft wings, and so forth are basically probability events. What Berkson did was to realize that the phenomena which he studied could be described by a logistic equation. We believe this equation is also generally applicable in expressing incremental risk factors in cardiac surgery. . . ."
—IBID.

And again—

". . . the patient is already sitting on the logit plot nomogram so close to the vertical upswing that the smallest additional incremental risk steeply increases the probability of hospital death. . . The trick of course is to obtain quantitative information with which appropriate analyses and transformations can be made."
—IBID.

and still again—

". . . These analyses . . . , the research I've been alluding to, the new knowledge, all of this is for naught if the surgeon can't translate it into an effective operation. . . . The quiet, concentrated, efficient operating room is something beautiful, and is truly the place and the moment which most importantly determines the results of cardiac surgery."
—IBID.

"For some reason, when I looked at the job here—I don't really like to say this because it sounds unkind—there really wasn't much here, you know. And in a way that's a better opportunity than a highly developed institution. You take more chances but maybe you get great awards if you win because you can build it the way you'd like to build it."

He had gone through the period of perhaps a year and a half when the only cardiac surgery in the world was being done at "two little places 90 miles apart in Minnesota"—Dr. Walt Lillihei at the University of Minnesota and Dr. Kirklin and colleagues at Mayo in Rochester.

Earlier work in the late 40s and early 50s had been done by Dr. Charles R. Bailey in Philadelphia, Dr. Dwight E. Harkin in Boston, and Sir Thomas Holmes Sellors and Lord Russell Brock in London.

"They were 5 to 8 years earlier but not with the heart-lung machine. It took that tool to get inside the heart. They did what we called closed heart operations without a heart-lung machine. So everything was very limited. You couldn't see where it was going."

Dr. Kirklin freely acknowledges his debt to his predecessors and his contemporaries, men like Dr. Francis Murphy, a neurosurgeon with whom he worked in the Army; Dr. O. Theron Clagett of Mayo, a chest surgeon; and of course, the quietly influential Dr. Gross at Harvard.

"I suppose those three people—Dr. Gross, Dr. Murphy and Dr. Clagett—are the ones I owe the most to—but there are thousands of people along the way you learn from."

There are few single heroes in medicine, Dr. Kirklin says: "We all build on the shoulders of each other." Medical science is more a process of accretion, of putting together little pieces of a mosaic, than the solitary genius the general public imagines, he says.

But an academic surgeon, which Dr. Kirklin is by unrepentant choice, has a special responsibility to organize all he's learned, to add his own contributions to it and to put everything down in writing for others to benefit by. He says he is willing to be judged by his articles (see bibliography).

"I've been lucky because I was in on it from the beginning. I have been in two institutions that provided an opportunity to generate new knowledge and I've been with young people with extra hands and extra brains to help in doing it. So I think we have been able to make a whole host of contributions through the years and still are doing new things and generating new information. If there's any claim to fame on my part, that would be it. I think not of the thousands of cases but that, along with other people, we have been able to help expand the scope of cardiac surgery and increase its safety, a very long and complicated endeavor."

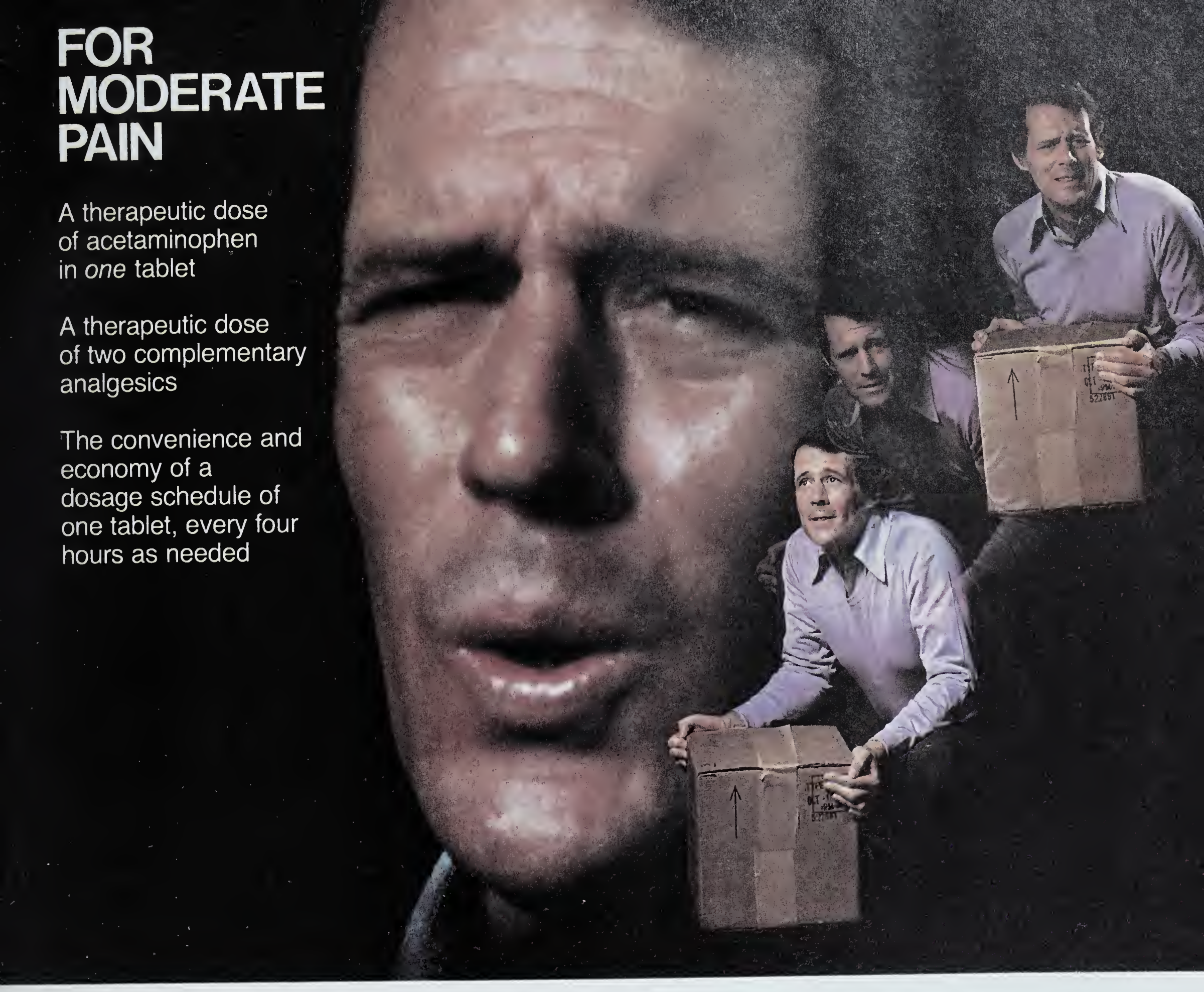
The following exchange between Dr. Kirklin and his interviewer may be revealing:

FOR MODERATE PAIN

A therapeutic dose of acetaminophen in *one* tablet

A therapeutic dose of two complementary analgesics

The convenience and economy of a dosage schedule of one tablet, every four hours as needed



WHY NOT WYGESIC® C IV

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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Wyeth Laboratories
Philadelphia, Pa. 19101



A non-narcotic one-two punch against pain, with concurrent relief of anxiety/tension

EQUAGESIC® C-IV

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.

Final classification of the less-than-effective indications requires further investigation.

The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported; most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

Wyeth Laboratories
Philadelphia, Pa. 19101
TM

INTERVIEWER: "We've talked about your friends, those who inspired you. Do you have any critics?"

DR. KIRKLIN: "Oh, you bet. Lots of those."

INTERVIEWER: "Would you name a few?"

DR. KIRKLIN: "I have had a difference of opinion through the years with one person and then another about some scientific problem about which I have one opinion and he has another. That's not what I call being a critic. That's just kinda differences of opinion. As you resolve these differences, you end up with more information.

"But I think I have critics here in Alabama. There are people who think I am a very bad man for the state in some ways. There are people who feel that a different kind of person in the job would be better. No matter what *kind* of person would be better. . ."

At this juncture, Dr. Kirklin had his secretary produce a letter written in 1978 to the Journal of the Medical Association of the State of Alabama. A Montgomery physician had asked rhetorically in that letter, "Where Have All the Artists Gone?" The writer suggested that they had gone from medicine, with the result that physicians are far less esteemed today than they once were. With all the technological advances, he continued, the scientific had become ascendant over the artistry of medicine, with a consequent loss in the doctor-patient relationship.

"We must treat human nature," the writer had said in his peroration, "not only human disease. It's not enough to cure a disease and then experience a sense of ego-fulfillment; we must go farther, experiencing the same self-satisfaction from the expressions of an appreciative patient. . .

"Dwell not on the disease but the patient afflicted with it. . . . Let's give back the heart-lung machines; throw away all the computers, dump protocols and statistical rubbish they produce; to hell with our profession as that ugly monster labeled the 'health care industry'—bring out the paintbrushes, set up the easels; let's all become Rembrandts. Let's do it before the final portrait of medicine is painted."

Although Dr. Kirklin was not mentioned by name in the letter, he took it as an attack on his use of computers, statistics and probabilities. He responded, in part:

"I don't agree that the use of scientific methods and modern technology is incompatible with artistry and compassion for the patient. Indeed, I am completely committed to the concept that the artistry of medicine and surgery, and our compassionate desire to be of warm *but effective* service to the patient demand our use of the most precise and modern methods available.

"Often this involves computers, protocols, statistics, and even, on occasion, heart-lung machines. I strongly suspect that our patients, if fully informed, would demand considerably more from us than artistry and compassion. They demand that, of course, and rightfully so. But, I believe they also demand results.

On the rewards of his art and science—

". . . It is in the Cardiovascular Surgery Intensive Care Unit that we reap the enormous and irreplaceable human rewards for all our study and research, for all the science and surgery, and for all the hours of postoperative care, as we watch our patients large and small return to their families and to a healthy life ahead. . . ."

—IBID.

On academic surgery—

"Academic surgery is variously defined, but to me it is the practice of surgery in an environment and with an attitude that results in excellent patient care but also in the generation of new knowledge and in the organization and presentation of available knowledge so that it will be useful to others now and in the future. It is a fusion of clinical surgery, research, teaching, and administration. Those who have experienced only one of these interlinked phases cannot understand the whole."

—TRAINING HORSES, QUARTERBACKS, PILOTS AND SURGEONS, DISTINGUISHED FACULTY LECTURE, BIRMINGHAM, 1975, WITH CO-LECTURERS BUD WILKINSON, COACH, AND MAJOR BELA BUTTYKAY, HUNGARIAN CAVALRY

Personal statement—

"I am an incurable idealist, capable as most of us of devastating mistakes but certain that man's survival as a civilized animal depends not only on some of the remarkable things he can do but on his idealism as well."
—IBID.

Roots of his interest in football—

"This is a photograph of Bud Wilkinson when he was a great quarterback for the University of Minnesota in 1936. All four years in college I worked as a student manager of football, including that year in 1936 . . . So I do claim a little knowledge of football. . . ."
—IBID.

On why he bought Markomanne, his German jumping horse—

"He was bought by an American and brought to this country. He apparently didn't like it here, for he promptly stopped winning races. He developed a reputation for being talented, but crazy and unruly. . . . Being familiar with this combination of talent and unruliness from my long experience with cardiac surgeons, I bought the horse. . . ."
—IBID.

"Would (the letter writer) really wish to go back to the day when all that could be said of the doctor was that 'he sat up all night with Granny, while she died'?"

Dr. Kirklin admits he is "a little bit paranoid" about such criticism: "Because I write and talk about scientific matters, because surgery is to me absolutely a science. It's got nothing to do with anything but probability estimates and how you put things together and how you manage the heart-lung machine. Since we do write a lot of complicated papers and we do use computers, not only in our ICU (where computers monitor patient recovery and even administer medication as needed), but for a lot of our research, then some people get the idea that since that's what we talk about in scientific journals, then that's all we do. And they don't seem to have any idea that it's quite possible to combine that intellectual approach to surgery with also what is a very important part of surgery, namely the interpersonal relations between you and the patient. There seems to be an assumption that if you're a high-powered scientific surgeon, therefore there's no way you could be a kind, considerate, compassionate one."

The charge that such high technology as he brings to medicine tends to dehumanize it is not new to Dr. Kirklin, nor is it always so distant as a letter writer in another city.

"Some years back the dean—and I won't say *which* dean—brought in for the first year medical students some sort of sociologist. It was very clear that he was criticizing the surgery department here to the students because we dealt with all these probability equations and so forth—'dehumanizing medicine' as it were. I just couldn't be more violently in disagreement with that.

"*Our job* (Dr. Kirklin's usually soft voice is elevated now in what is obviously to him a fundamental statement about which he feels strongly) *Our job is to make the best possible decisions and do the best operation and make the best decisions afterward. That's not a matter of tender loving care or anything else. That's a matter of top reality, probability estimates, what you can do what you can't do, comparing two options and picking the better of the two. But it isn't true that just because you do that you can't also be kind and compassionate and deal with your patients in a personal way. The assumption was made that the two are somehow incompatible. Not so, of course.*

"If I'm the patient, I think, I want a doctor who is cold and calculating taking care of me. I want him to talk nice to me, explain things to me in language that I can understand, but when he does his business I want him to be a top pro."

INTERVIEWER: "A war situation?"

DR. KIRKLIN: "Yes. I agree 100%."

Dr. Kirklin's son, Jim, now on his service beginning the long tutelage before he is pronounced competent to go on his own, says of his father:

"My father is a pessimist. He always expects the worst. That accounts for his incredible energy and drive. He thinks he was put here to prevent the worst from happening."

The admiration in which Dr. Kirklin is held by his handpicked surgical associates—Drs. Robert B. Karp, Nicholas T. Kouchoukos, Albert D. Pacifico and George L. Zorn—and his "Associate Thinker," Eugene H. Blackstone, M.D. (a non-surgeon), approaches awe, tempered only by a confession of an element of mystery about him.

DR. KOUCHOUKOS:

"I have worked with him 12 years, but I know little about him personally. He is the most brilliant man I have ever known, but he is also a very private man."

DR. PACIFICO:

"Superb. That describes him. As a surgeon, superb. As a teacher, superb. As an administrator, superb. As a research scientist, superb."

In lengthy, candid interviews, all confessed to a sense of respect they have never had for any other physician, although all admitted there were mysteries about him that they might never fathom. Said one: "I think his self-imposed isolation is a defense mechanism, but I don't know why."

All agreed that the slightly built Dr. Kirklin, at 62, is still growing in a stature that is already towering, that he sets a pace in work capacity and acquisition of new knowledge that is the envy of even the brightest young physicians.

His interviewer found that while Dr. Kirklin would talk with apparent total candor about his work, he imposed personal boundaries that appeared impenetrable. For example:

QUESTION: Dr. Kirklin, what do you do for leisure?

ANSWER: I pursue it.

There was no doubt that this was to be the full extent of his answer. His colleagues said they knew of his interest in wines (although "he couldn't care less what he eats"), jumping horses and tennis, and his son remembers his passion for swimming and skiing. But apparently he considers such diversions as a private world with a high wall around it.

In his role as teacher, Dr. Kirklin admits he has earned the reputation of a hard taskmaster, perhaps even something of the martinet. He insists he is not intolerant of human error, since man lives and progresses by error, but that he can never condone sloppiness, or performance that is less than the best that he thinks his charges are capable of. He expects the same maximum effort of others he demands of himself.

On the sine qua non for all candidates for cardiac surgery—

"We look for commitment to excellence. . . . We look for staying power and inner strength and calm that will allow the individual to survive and thrive through a lifetime of cardiovascular surgery. The young surgeon must have the self-confidence to proceed decisively on his own when necessary, and at the same time the humility to seek help and advice whenever possible. . . . self-appreciation without self-adulation . . ."

—IBID.

On comparable skills—

While a heart operation is surely different from the flight of a jet airliner where several hundred people's lives are at risk . . . it has its own demanding aspects."

—IBID.

On what academic surgeons learn from coaches and riding masters—

"Inspired literally by the play-books of great football coaches and the detailed books of horsemanship such as the one by the Hungarian horseman d'Endrody, our own cardio-vascular surgical group has begun to develop a playbook, or, as we call it, a notebook . . . Incomplete as it is . . . it is already large and quite detailed (containing) detailed discussion of basic surgical techniques, step-by-step descriptions of many operative procedures, the physiological bases and details of postoperative care, and protocols that we call patient management programs for various diseases and postoperative problems. . . . It is incomplete but we hope someday it will be complete. Some have criticized this effort and call it a cookbook. But to be consistent they must similarly criticize every flying manual, every detailed teaching effort with which Bud Wilkinson built championship teams, and d'Enrody's efforts, which have built the horse & rider combination. . . ."

—IBID.

A story that seems to have a life of its own in the Medical Center community is, his colleagues say, apocryphal. But, like the stuff of most legends, they say, there is much truth in it. Here is the story.

Dr. Kirklin discovered one Friday afternoon in the fall of some undescribed year that all of his surgical assistants were gone. Inquiring, he found that they had left early for a football weekend, to watch the University of Alabama's Crimson Tide play.

Dr. Kirklin, the story goes, set about immediately calling in all the help he could get and had all of the missing surgeons' patients prepared for surgery.

Around the clock, for the entire weekend, he performed open heart operations until he had completely cleared the wards.

When the missing surgeons returned Monday, they discovered all their patients missing, only to locate them in ICU, their surgery completed. Dr. Kirklin said nothing of their absence or of the wholesale operations, and none dared mention the subject to him.

That's the legend. When asked about it, all his associates denied that it had ever happened. Further, they said, it could *not* happen because no one on Dr. Kirklin's service would ever dare desert like that.

But all agreed on something else. If it *had* happened, if they had in fact disappeared, leaving their patients, Dr. Kirklin would have done exactly what the living legend says he did do.

One of his associates said:

"He likes power, knows how to get it, how to keep it and how to use it. He has contingency plans for everything, in surgery and in administration. He may have planned the way he thinks things will happen five, ten years ahead, but he also has contingency plans if they don't."

Dr. Kirklin still teaches only two residents a year in a training program that "may be the longest in medicine," a minimum of seven years after medical school. "But if they really want to do all forms of cardiac surgery, congenital heart disease and the rest, in an academic setting, learning something about research as well, then another year or two after that. So it's 7, 8, 9 or 10 years after medical school."

Dr. Blackstone, his Associate Thinker, remarks on the unusual scene in Dr. Kirklin's OR. Unlike most, there is almost no talk. Hand signals are relied on as the principal means of communication, so well schooled are the participants.

Dr. Kirklin's teaching goes beyond his residents, far beyond. In a recent period, heart surgeons from all over the country had come to observe, remaining days, weeks or months, with scores of others from Russia, Italy, Spain, Britain, Sweden, India, Japan, Kuwait, Israel, and so on, thus disseminating his knowledge to virtually every corner of the world.

What does the future hold for cardiac surgery, which is only a quarter-century old as a specialty? Dr. Kirklin:

"There haven't been any major breakthroughs in the past 10 or 15 years. It's going to be tough to make it a lot better than it is, but there are some problems where the mortality is fairly high, complicated problems, that need to be worked on. . ."

He pauses, rubs his incredibly thin fingers together thoughtfully and adds with that light in his eye that his close associates have described:

"It's not all finished by any means."

A summation that, of course, applies to every root and branch of medicine. And perhaps always will.



"It's not all finished by any means"

On the changing face of surgical training—

". . . The Halstedian system did take notice of the difference between the true expert and the resident by arranging things so that the resident staff developed their skills on the so-called service patients, who of course could afford no other kind of care, while reserving the best rooms in the hospital for the so-called private patients, who were of course always operated on by the faculty. A whole mentality of patient care, one which you easily understand is a rather ugly one, evolved from this system and still is a significant voice in the American surgical scene. If you don't believe this, recall the hue and cry from many segments of academia when the Social Security legislation creating Medicare and Medicaid threatened (to make) every patient . . . a private patient and thus to destroy the very heart of the Halstedian system . . ."

—IBID.

REVERSIBLE RENAL FAILURE DUE TO IBUPROFEN

by
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ABSTRACT

Reversible renal failure developed in a patient taking therapeutic doses of Ibuprofen, a non-steroidal anti-inflammatory proprionic acid derivative. This is, to our knowledge, only the third such reported case, but as such, points out that this may be a problem that is not as rare as was originally thought and needs to be brought to the attention of physicians utilizing this drug.

CASE REPORT

JCA was a 64-year-old Negro male who on 8-26-78, suffered a severe laceration of his left wrist on broken glass, completely lacerating the flexor carpi ulnaris tendon, the ulnar artery, the superficial dorsal ulnar nerve and both sensory and motor branches of the ulnar nerve at the bifurcation, and on that day, under general anesthesia, underwent repair of the ulnar nerves, flexor carpi ulnaris tendon, and ulnar artery with carpal tunnel release and Guyon's canal releases. He gradually recovered sensation, however developed, in spite of intensive physical therapy, splintage and attempts at sensory re-education, rather severe contractures of the PIP and MP joints of the index, long, ring and fifth fingers, complicated by the fact that he had had moderate osteoarthritis with mild flexion contractures of the PIP joints prior to the injury. Because of this, on 11-6-79, he underwent capsulectomies of the PIP joints of all fingers, with Z-plasties of the volar skin and capsulectomies of the MP joints of the fingers under axillary block anesthesia. During these two hospitalizations, he had normal renal profile and liver profile studies, and his hypertension for which he was being treated with Apresoline remained under fairly good control. His only other history was that he had had a bladder tumor resected several years ago, and also had diabetes mellitus, controlled very well with Insulin.

Because of transportation problems, he was readmitted to the hospital for intensive physical therapy on 11-26-79, and in conjunction with this was started initially on Ibuprofen (Motrin) 400 milligrams tid which was then increased on 11-28-79 to 800 milligrams tid. He continued to improve with regard to the ranges of motion of his joints, however, on 12-8-79 developed a low grade temperature of 100 degrees Fahrenheit, was noted to have a decreased urine output and started having swelling of his face and abdomen, therefore on 12-8-79, liver and renal profiles were checked, and found to be normal with the exception of a BUN of 114 with a normal creatinine. On 12-10, his temperature had increased to 101, the Ibuprofen was discontinued, and the BUN was found to be 124 with the creatinine of 7.0 and one plus protein in the urine. The liver function studies were normal. On 12-11-79, the BUN was 126, temperature decreased to 100 degrees, and creatinine was 6.3, again with normal liver function studies. On 12-12-79, the BUN decreased to 120, creatinine to 4.5 and on 12-13-79, creatinine was down to 3.0. On 12-14, the BUN had decreased to 64, Creatinine 1.0, and continued normal liver function studies and normal urinalysis. On 12-20, he was afebrile for 24 hours, BUN had decreased to the admission level of 37 and creatinine was now 1.4, again with normal liver function studies. The urine output became normal on 12-13, and all swelling of the face and abdomen disappeared gradually until he reached his admission appearance on 12-19-79.

Throughout this hospitalization, he was kept on his dosage of Apresoline 10 milligrams tid, and his blood pressure remained normal.

Since that time he has had no recurrence of any problems with regard to signs or symptoms of renal failure, and his blood pressure is stabilized at about 150-100.

Discussion

This patient experienced an acute onset of reversible renal failure and nephrotic syndrome while taking Ibuprofen for non-specific post-traumatic joint stiffness. Remission within 10 days following withdrawal of the drug suggests a cause- and-effect relationship between the drug and the disease.

This relationship has been reported with Ibuprofen in two previous cases[1,2,3,4] and following usage of other proprionic acid derivative anti-inflammatories in several cases.[3]

It is believed that these agents inhibit renal prostoglandin synthesis predisposing to the development of peripheral edema through alteration in renal hemodyanamics.[2]

This is probably also the mechanism of action for the reported cases of renal dysfunction due to Indomethacin,[5] fenoprofen,[2,7] and naproxen[1,2] as well as production of Stevens-Johnson Syndrome plus toxic hepatitis due to Ibuprofen.[8]

This is the first case reported in a patient who had neither congestive heart failure[3] or systemic lupus erythematosus,[9,1,10] and, we believe, emphasizes that renal function must be assessed with caution in patients taking Ibuprofen, especially if that patient is getting treated with other drugs, especially for hypertension.

References Available on Request

Hernia Repair Using Local Anesthesia

Zerney B. Barnes, M. D.

The intent of this presentation is to emphasize the advantages of the use of local anesthesia in the repair of groin hernias. This method, which is not original, deserves application where possible because it is almost free of risk and complications, significantly reduces the hospital stay and shortens disability.

My experience began with the poor risk patients and gradually enlarged to include all adults with groin hernias. As time passed and the many advantages became obvious, I began to include umbilical hernias and even large uncomplicated ventral hernias. Eighty five hernias have been repaired using local anesthesia. Seventy four of these were groin hernias, four epigastric, four ventral or incisional and one a hernia of the lumbar triangle of Petit. Eight were done as emergencies because of incarceration. In this entire series, there was no mortality, or significant operative or postoperative complication.

All operations are done in the hospital operating room. Preoperative evaluation is limited to essential data such as blood count, urinalysis, chest x-ray and EKG. However in no instance did results of this data influence the management of the hernia repair. Premedication using morphine or demoral and atropine rarely requires supplement with sedation, but in each instance after arrival in the operating room an intravenous is placed and maintained during the procedure should supplementary analgesia be needed. Xylocaine 1% or ½% is used as the local anesthetic agent. The average volume required for groin hernias is about 30 cc., and the ½% works just as effectively as 1% solution.

After preparing the skin and placing drapes, xylocaine is infiltrated in the skin and subcutaneous tissue along the planned line of incision, and thereafter as needed in the fascia, around the cord, along peritoneal surfaces. The patient is asked to voluntarily strain and cough to demonstrate the hernia defect, and after the repair to confirm success. The average operating time is about one hour. There is no need for postoperative recovery room care, and after return of the patient to his room ambulation as desired is encouraged.

48-Hour Average

The average postoperative stay for the elective inguinal hernia has been 48 hours or less. In no instance has the use of the urinary catheter been necessary because of phlebothrombosis, or wound infection, and of course no operative mortality. Not infrequently no postoperative analgesia was requested by the patient. After mastering the technique, I found that very large hernias could be repaired, and when needed, prosthetic mesh could be inserted. Several large uncomplicated ventral hernias were repaired with the use of local anesthesia.

The type of repair done for groin hernias varies and depends on the individual situation. A Cooper's ligament repair, or modification, is my choice for hernias in the older adults, those with large hernias, direct inguinal hernias, and femoral hernias. I do not find it necessary to use rectus sheath, and I never hesitate to use mesh if it seems indicated. In the repair of recurrent hernias, I simply repair the defect and do not take down any solid scar.

In private practice as I am engaged, it is really impossible to know what the recurrence rate is. In the series presented, I know of only three recurrences. Both of these were at the internal ring, and the repair of each, which was done under local anesthesia, consisted of placing no more than two or three sutures to close the defect.

Large abdominal incisional hernias, properly selected, may be repaired using this technique, which

might include insertion of prosthetic mesh. Two ventral hernias extended from the xiphoid to symphisis pubis and followed aortic grafts for aneurysm. Because of the undesirability of using general anesthesia, local anesthesia was used and it proved to be very satisfactory. One very large abdominal incisional hernia in a patient with cirrhosis was repaired under local using a large sheet of marlex mesh, and with a postoperative hospital stay of three days. An incarcerated umbilical hernia, in a woman who weighed 300 pounds, required resection of omentum. This was very successfully done with local xylocaine. One patient presenting with a tender mass in the right lumbar triangle of Petit underwent repair of this hernia under local. The patients ages ranged from 24 to 88 years. All patients, except those that were emergency problems with incarceration, requested repair of symptomatic hernias. Most patients were essentially healthy and good operative risks. However, repair of symptomatic hernias was done for those having such problems as history of coronary by-pass, hypertension, emphysema, mental depression, chronic alcoholism, and history of surgery for aortic aneurysm.

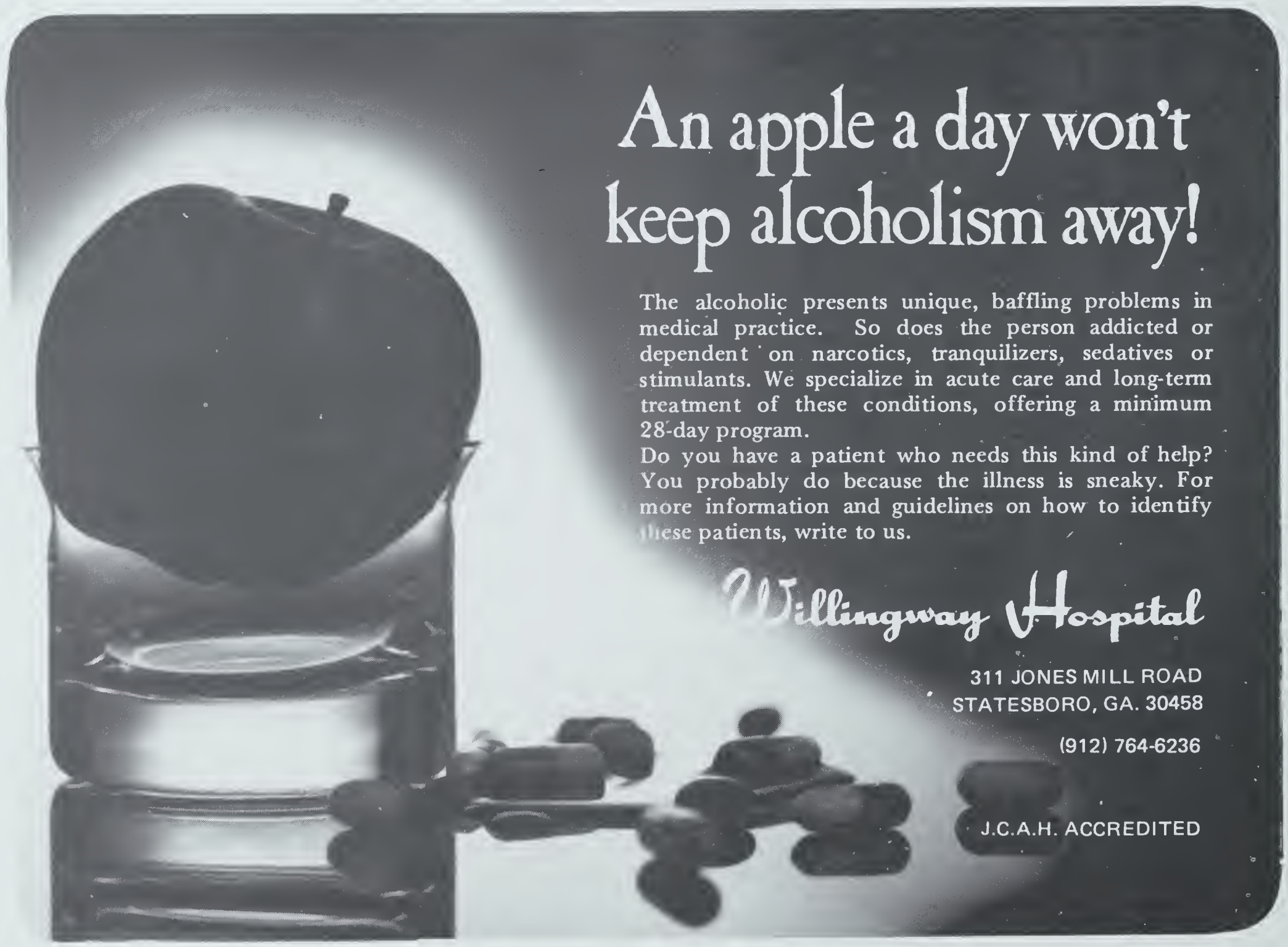
Return to Work

All patients returned to the office for suture removal 7-14 days post operative and many of these drove their automobile themselves. All patients except those doing manual labor returned to work when they chose to do so. Those performing labor were advised to wait four weeks or more before resuming heavy work. Many patients returned to their occupation immediately post-operative, or within one week.

Based on this experience, and reports of others, it would seem that most groin hernias and selected abdominal hernias in adults should be repaired using local anesthesia because of the ability to achieve excellent repair with insignificant risk, short hospital stay, and minimal disability.

85 Hernias Repaired Using Local Anesthesia

Type	Average Hospital Stay	Wound Infections	Postoperative Urinary Retention	Mortality
	48 hrs.	0	0	0
Inguinal 73				
Femoral 1				
Umbilical 4				
Abdominal Incisional 4				
Lumbar Triangle of Petit 1				



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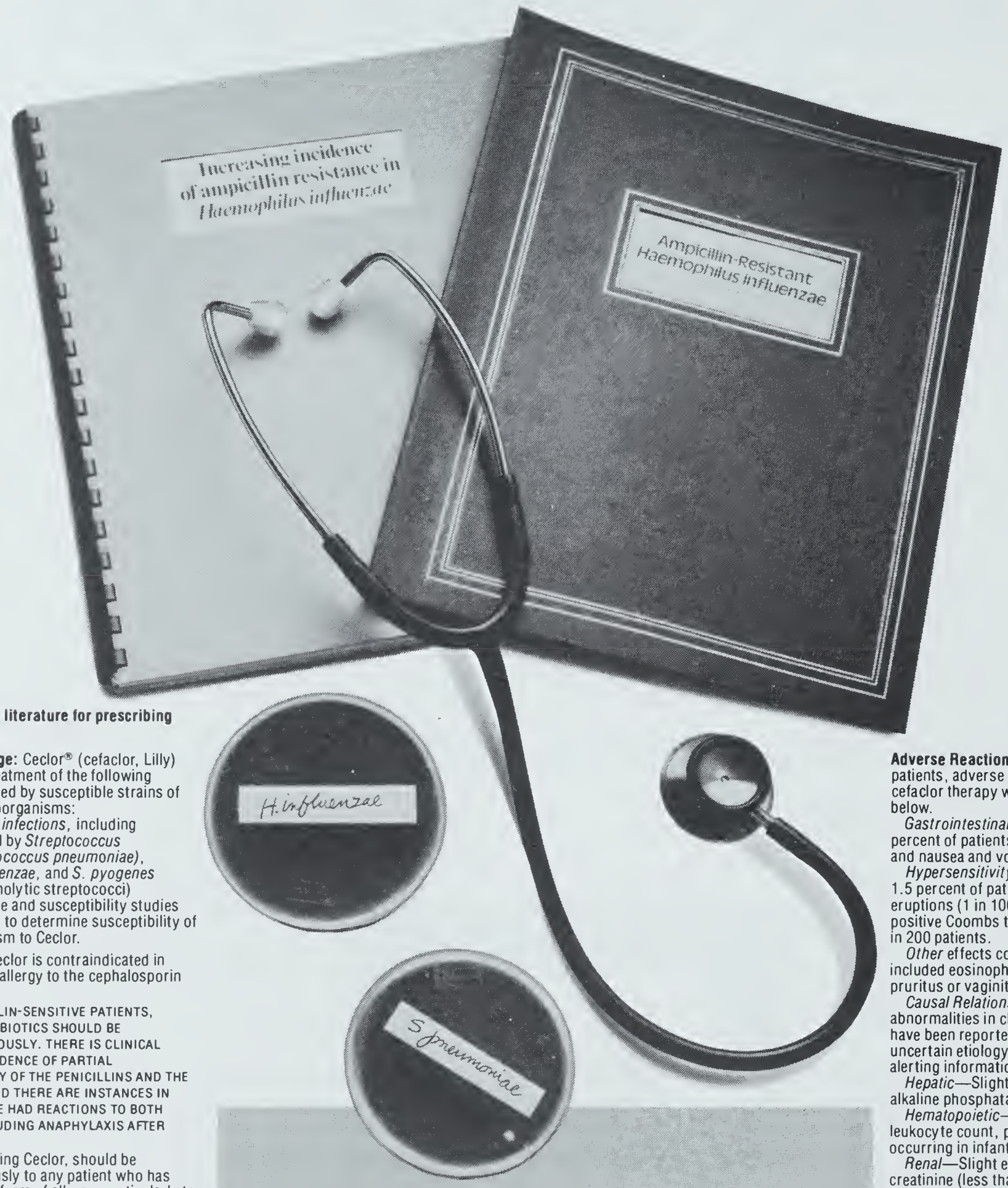
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An added complication... in the treatment of bacterial bronchitis*



Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

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cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: In clinical studies in 1493 patients, adverse effects considered related to cefaclor therapy were uncommon and are listed below.

Gastrointestinal symptoms occurred in about 2.5 percent of patients and included diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [070379R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

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INTERNAL MEDICINE: Age 35; University of Texas, 1978; American Board Eligible for Internal Medicine in 1981; seeking practice with a small group, particularly interested in the Huntsville, Birmingham and Montgomery areas. Available July 1981. LW-080180.

* * *

OBSTETRICS AND GYNECOLOGY: University of North Carolina, 1974; seeking practice in solo, partnership or single specialty group. Available August 1981. LW-40112.

OBSTETRICS AND GYNECOLOGY: Age 29; University of Virginia, 1976; American Board Eligible; seeking practice in specialty preferably in the Southern part in a town with a population of 10,000-25,000. Available September 1980. LW-050380.

* * *

OBSTETRICS AND GYNECOLOGY: Age 33; University of Texas, 1973; American Board Eligible; seeking practice in single specialty group, multi-specialty group or partnership. Available August 1980. LW-21032.

* * *

PATHOLOGY: Age 37; Meharry, 1974; seeking practice in assistant or associate, institutional or group. Available July 1981. LW-110579. (See LW-110679)

* * *

PATHOLOGY, CLINICAL: Age 30; Vanderbilt, 1975; American Board Certified; seeking a position as a hospital-based clinical pathologist. Especially interested in coagulation and blood banking areas. Available December 1980. LW-080280.

* * *

PATHOLOGY, ANATOMICAL AND CLINICAL: Age 34; University of Wisconsin, 1976; American Board Eligible. Available September 1980. LW-080380.

* * *

PEDIATRICIAN/GENERAL PRACTICE: Age 31; University of Arizona, 1975; American Board Eligible; seeking practice in institutional or group preferably in the southern area near Mobile. Available July 1981. LW-110679. (See LW-110579)

* * *

SURGERY, GENERAL: Age 29; University of Alabama, 1976; American Board Eligible; National Board Certified; seeking practice preferably in the northeastern or southwestern section with a population of 10,000-25,000. Available July 1981. LW-070280.

PHYSICIANS WANTED (Opportunities for Practice)

FAMILY PRACTICE—Unusual opportunity to take over a practice in a community of 1,600, trade area of 8,200 in a county of 32,000 residents in north Alabama. Hospital located nearby. Second largest town in the county. Tremendous potential for growth. Ob optional. Four churches, two schools, Leisure activities include water sports, fishing, camping and golf course. PW-080880.

* * *

GENERAL PRACTITIONER—Opportunity to practice in a community of 1,500, trade area 5,000. Principal source of income for community is Industry and Oil. Membership on the hospital staff is open. Country clubs and golf courses nearby. Nearest large city with population of 100,000 is 40 miles away. PW-080980.

* * *

PEDIATRICIAN—An associate is needed to join an established, extensive Pediatric practice—(General pediatrics, pediatric allergy and consulting and hospital peds.). Outstanding geographic, economic, cultural and professional opportunity. Minimal night and week end work due to cooperative arrangements with other pediatricians and emergency physicians. Initial salary negotiable with early partnership participation. PW-081080.

* * *

FAMILY PHYSICIAN—Board Certified, F. P. Residency-trained Family Physician wants same to associate with him in 1981. Prime site in growing residential area of Mobile. Expectations for future expansion to 3-4 person F. P. group. PW-050280.

* * *

NEARLY IDEAL SETUP FOR TWO FAMILY PRACTITIONERS—Fully equipped office available. Excellent building, ample parking. Fifty-year doctor retiring. Prosperous town, junior college and excellent schools, Recreation facilities unexcelled. Accredited hospital. Must be fully investigated to be appreciated. PW-060180.

INTERNIST—Desires part time weekday or weekend position in Birmingham or other North Alabama City. PW-060480.

* * *

FAMILY PRACTITIONER—Existing multi-specialty clinic seeks physicians for new satellite clinic in Butler, Alabama. First year guaranteed salary with excellent benefits. Partnership opportunity. PW-050180.

* * *

FAMILY PRACTITIONER—to associate with Family Physician. An excellent opportunity to establish a group in a new well equipped building located in the growing area of Mobile, Alabama PW-020180.

* * *

INTERNIST—Association with two Internists in hospital and office practice in Montgomery, Alabama. Hospital well equipped with new CCU, telemetry, etc. Board certified preferred. Terms liberal. PW-060280.

* * *

ORTHO, OB-GYN, UROLOGY—Excellent opportunity available with six (6) F.P.'s and one (1) General Surgeon. Office available. Super hunting, fishing and boating. One hour to Gulf Shores Beach. Diversified industry. Town approx. 7,000 with trade area approx. 15,000. PW-060380.

* * *

FAMILY PRACTICE, INTERNIST, SURGEON—Multi-Specialty Group new forming adjacent to hospital. Need Family Practice, Internist, Surgeon. Central Alabama city of 40,000 trade area. Fastest growing area in south. Accredited schools, balanced economy, cultural and recreational opportunities galore. Area lakes for fishing, camping, water sports. Hunting for deer, turkey, dove, quail, squirrel. City of 200,000 15 miles away via Interstate. PW-020480.



Mrs. O. B. Carr, Jr.
President, A–MASA

AMA Auxiliary Convention

Chicago, July 19-23, 1980

Chicago! It's always a fun place to go, and for those of us who attended the AMA-A Convention in July, it was also a very exciting place! Our Alabama Delegation was really in the limelight this year, and we loved it! Mrs. Ben Johnson, Jr., (Ruth) AMA Auxiliary President from Bessemer, Alabama presided as chairman and we were all so proud of her. The convention reflected the excellent leadership qualities she has demonstrated through out her year as AMA Auxiliary President.

Those who arrived early on Saturday were the lucky ones—the workshops on Membership, AMA-ERF, Health Projects and Legislation were a real learning experience. They were followed by individual consultations, a new idea this year, and a good one, giving individual help to those states with problems in these areas. Sunday morning we learned more about a subject dear to my heart—Foods and Nutrition. This educational program gave an overview of the current procedures and future possibilities of assessing and assuring food additive safety. Better learn to read those labels!

The Opening Session of the AMA House of Delegates on Sunday afternoon was outstanding as usual! Our Ruth Johnson presented a check from the American Medical Association Education and Research Foundation to Dr. James Sammons, AMA Executive Vice President totalling $1,604,889.54. How's that for fund raising? Of that amount $1,188,267.54 was raised by auxilians and the remaining $486,622.00 came directly from physicians.

The Opening of the House of Delegates of the AMA Auxiliary began on Sunday evening—another nice change—and Monday the Alabama Delegation began their day with a heart warming, now traditional, delegation breakfast. New to auxilians this year were reference committee hearings on the proposed amendments to the Bylaws, and other recommendations from the Board of Directors. We found them to be most useful for we all learned much about the "whys" of the changes proposed, and how others in different states felt about proposals. It certainly simplified our voting when the time came. This is just one example that demonstrates the thought, work, and leadership of Ruth Johnson during the 1979-80 auxiliary year.

A real plus of the convention was the outstanding choice of speakers and seminars. Where else could you have come face to face with Letitia Baldridge (our keynote speaker) or Jessica Savitch (the NBC News commentator) and hear their views first hand? Carson Conrad, the Executive Director of the President's Council on Physical Fitness and Sports, gave an excellent presentation on "Physical Fitness" and encouraged us in our "Shape Up For Life" campaign. Under the direction of Mrs. George Scofeild (Pat) of Birmingham, Alabama our AMA Auxiliary Health Projects Chairman, the "Shape Up For Life" program was extended by the house of delegates to include a third year of emphasis, which will be fitness of mental and emotional health.

The highlight of the convention for all of us from Alabama was, of course, the closing ceremony on Wednesday morning. Dr. Jack Hyman, Vice-President of MASA, presented the medical association's lovely gift to Ruth and congratulated her on truly an outstanding auxiliary year. We were so pleased to have Mr. and Mrs. Lon Conner with us for this very special occasion. Their sincere auxiliary love and support is unmeasurable. Mrs. Eugene Bradley (Annie) presented Ruth with two gold beads, representing the two newly organized counties during the 1979-1980 auxiliary year, which will be added to the lovely necklace given to Ruth from MASA and the Auxiliary when she was installed. A needlepoint rug, lovingly designed and stitched by members of the 34 counties of our state auxiliary, was presented to Ruth as a lasting treasure of the 1979-1980 AMA Auxiliary year. Just as this beautiful rug with squares depicting the AMASA and AMA Auxiliary seals, tree of life, seasons of year and the butterfly motif throughout, will be everlasting, so will the great strides forward made by the AMA Auxiliary during her leadership as president.

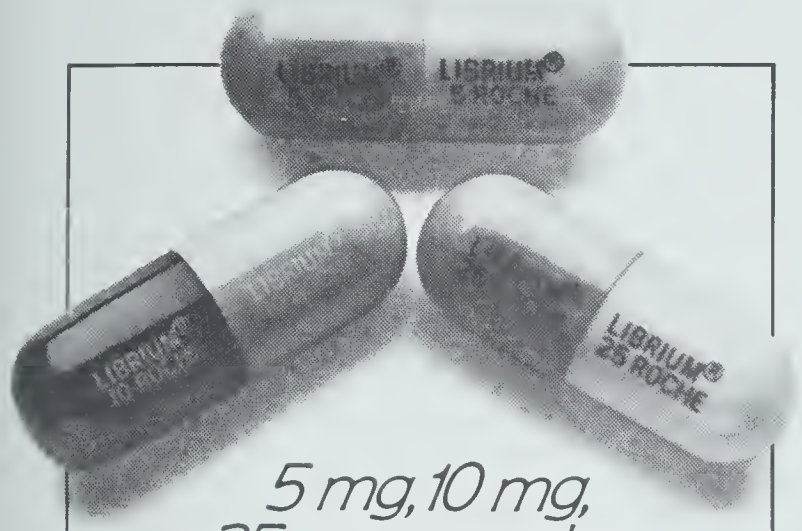
Changes have been brought to our National Auxiliary during this past auxiliary year, which will enable us to change with the changing times and meet the challenges of the 80's.

The AMA-A annual convention, consisting of its workshops, educational programs, business sessions and social events is always a rewarding, encouraging and exciting experience, I just wish everyone could go next year to Chicago!

Mary

President-Elect—Mrs. Rufus Lee; First Vice-President, Mrs. Robert Estock; District Vice-Presidents NW—Mrs. Robert Rhyne; NE—Mrs. Andrew Brown; SW—Mrs. John Taylor; SE—Mrs. William Lazenby; Recording Secretary—Mrs. Ralph Braund; Treasurer—Mrs. Lamar Thomas.

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- ☐ Proven antianxiety performance
- ☐ An unsurpassed safety record
- ☐ Predictable patient response
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- ☐ Minimal interference with many primary medications, such as antacids, anticholinergics, diuretics, cardiac glycosides and antihypertensive agents

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. Oral—Adults: Mild and moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d. (See Precautions.)

Supplied: Librium ® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose ® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs ® (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

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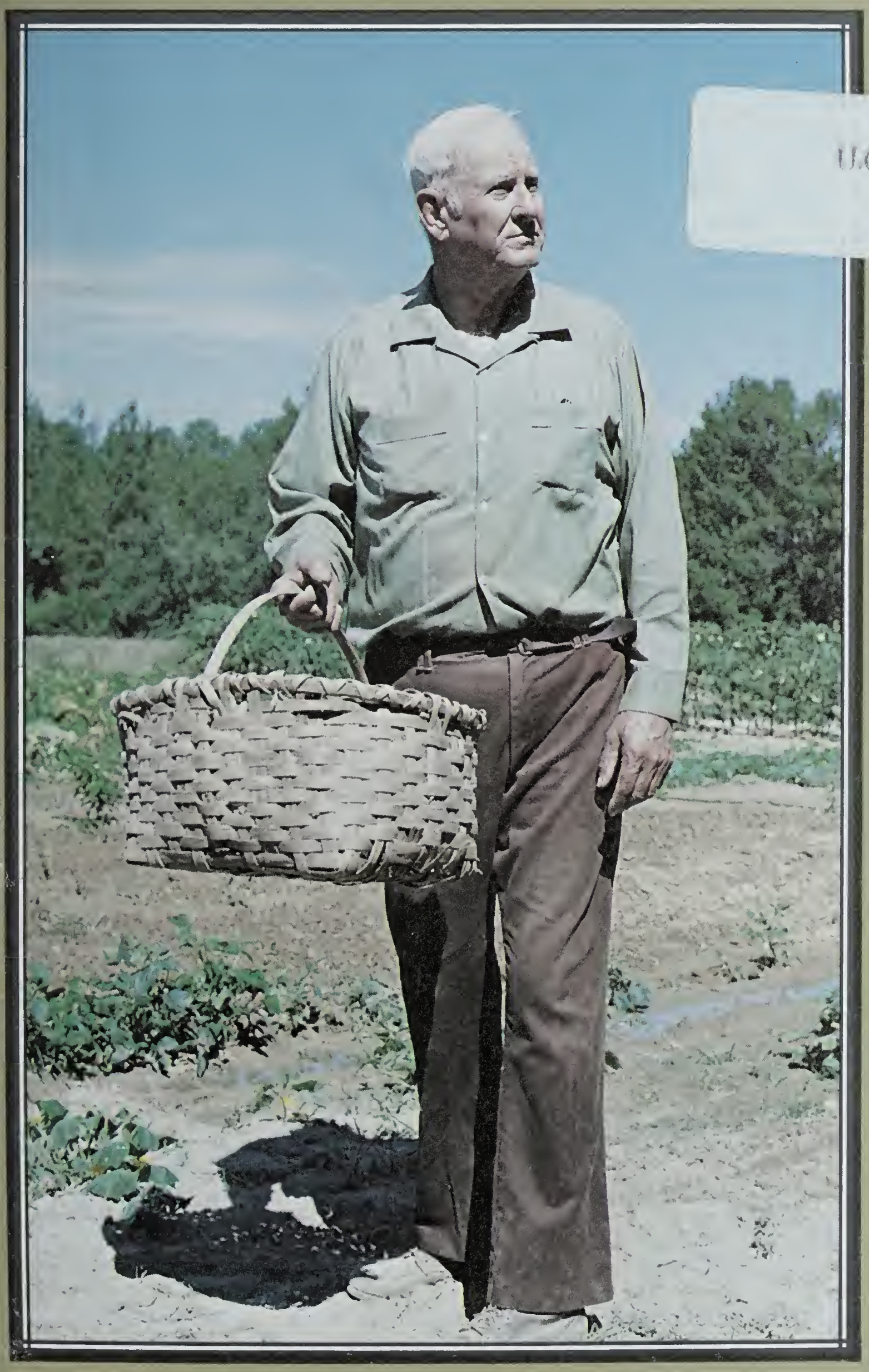
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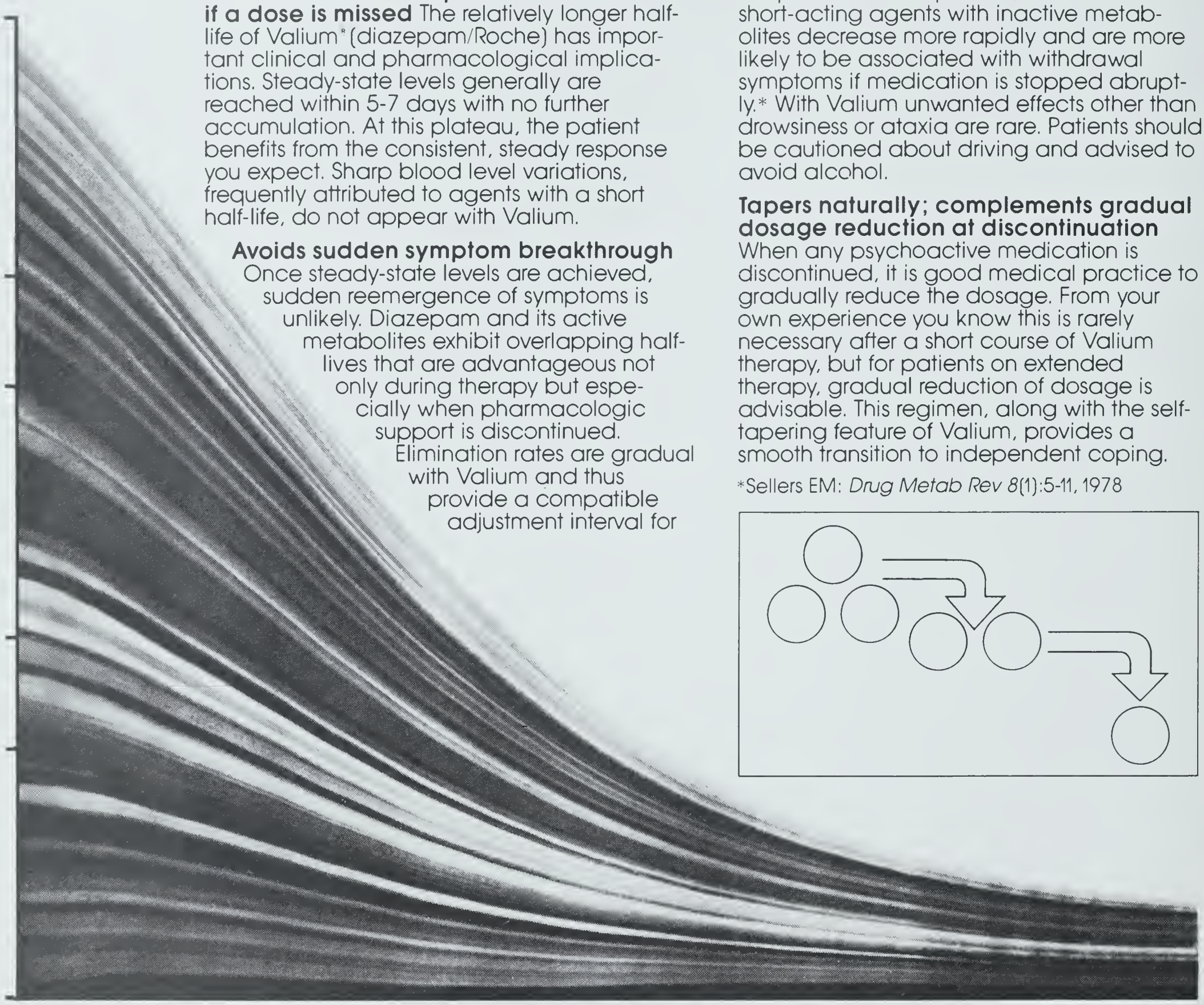
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Dr. Winston Edwards: Larger Than Life

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Tapers naturally; complements gradual dosage reduction at discontinuation When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev 8*(1):5-11, 1978

in the management of symptoms of anxiety

Valium®(IV)
diazepam/Roche
2-mg, 5-mg, 10-mg scored tablets

effective therapy through efficient pharmacodynamics

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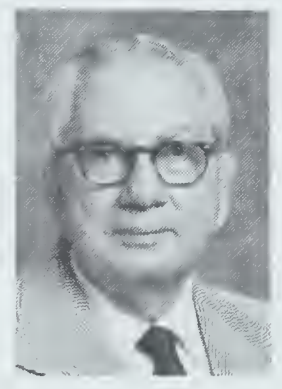
Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy

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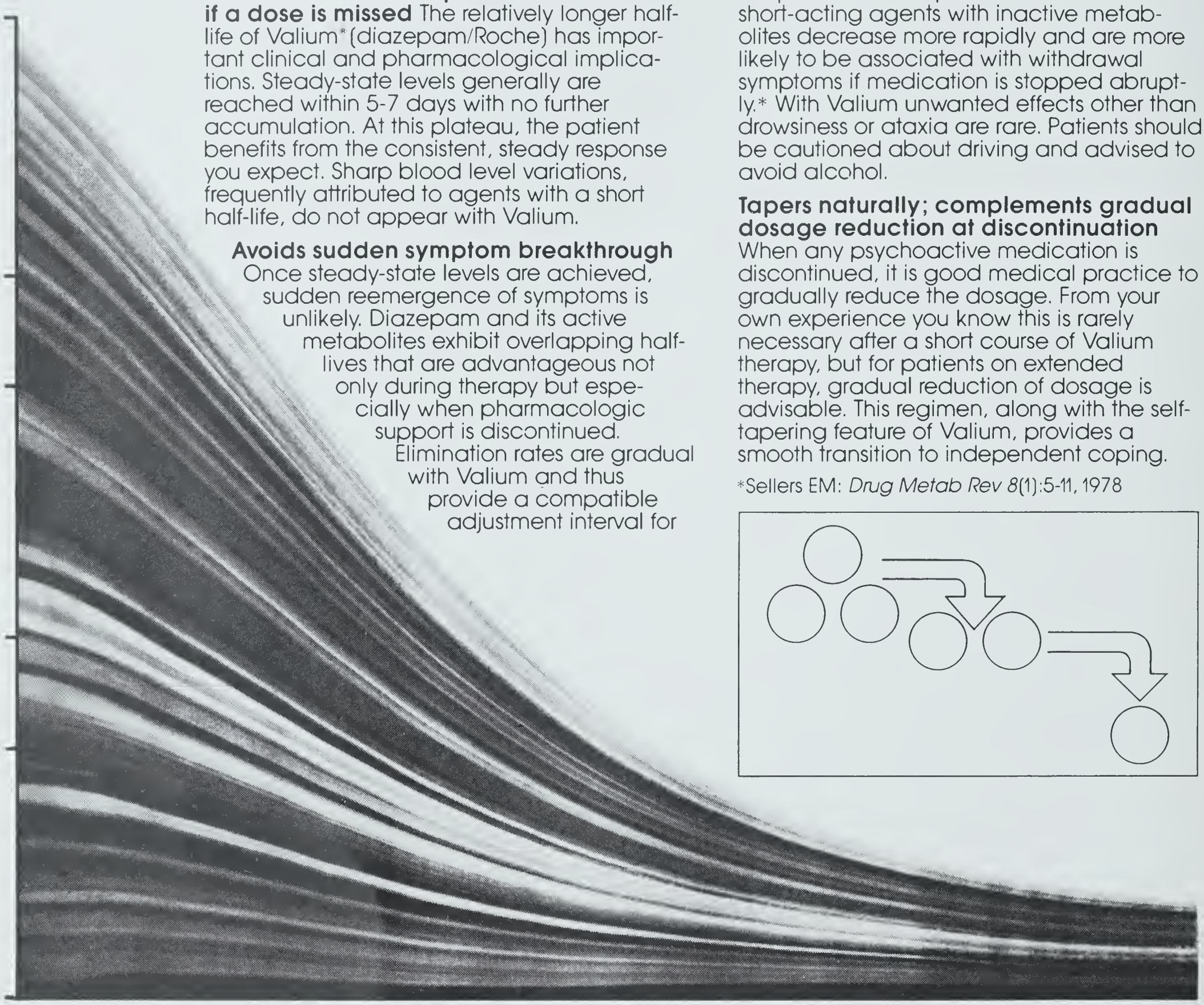
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From The Executive Director

Never Leave Well Enough Alone

Central to any free economy is that the seller determines his price, based on his overhead, on what he thinks he should be paid for his goods or services, and offers that for the buyer to consider.

The buyer may accept or reject the offer, using his own criteria for determining the value of the seller's goods or services to him. If he doesn't like the seller's price, or even if he doesn't like the way the seller parts his hair, he can take his business elsewhere.

That exchange seems simple enough but it has caused a world of trouble, mainly because the planners and meddlers can't leave it alone. Being infallible, they want to set the price, which they in their wisdom consider the fair price.

The woes that have thus resulted from overregulation would fill many volumes. Suffice it to say that just at a time when Washington is getting the word and moving toward deregulation (airlines, trucking, etc.) the wise men in the Health Care Financing Administration have concluded that there is really no alternative to regulating physicians' fees.

The word from Washington is that this symbolic center of the debate between private enterprise and government control will come under increasing fire in the years ahead, with some form of fee-control likely where federal funds are involved. The mechanism for this invasion may be borrowed from the Kennedy or Carter national health insurance bills, it is said, or the two in combination, with possibly some other ideas to sweeten the pot.

Peter Fox, director of HCFA's policy-analysis division, says blithely:

"We see fee schedules not as a means of controlling costs or clamping down on doctors, but rather as a means of achieving the policy directives that the UCR (usual, customary and reasonable charge) defeats."

Mr. Fox is said to believe that the current reimbursement systems tend to favor the specialist to the disadvantage of those in primary care, and it is the latter the government wants to foster.

Similarly, HCFA's concerned that the higher fees go to see city doctors, to the disadvantage of those in the country, and it is the latter group whose numbers the government would like to see increase. Thus some of the brains in Washington are turning with more than usual and customary interest to controlling physicians' fees, establishing new assignment policies and forcing doctors to take the risk.

Some of the proposals being considered may be found in a discussion of the subject in *Medical Economics* for Aug. 18. It's enough to say that the prospects are chilling, that the government will make an all-out bid to hogtie the disbursement system.

All in the name of economy and good government, of course, and completely heedless of the sad fate of all such price control adventures.

They never learn.



S. Lon Conner

President's Message



C. A. Lightcap, M. D.
President

Americans Trust Individuals

Once every four years, Americans become intensely interested in polls. I refer of course to the pre-election polls.

My subject is not politics, but the many polls taken over the years about physicians and organized medicine. I am somewhat hesitant to attempt to generalize about them, since the polling science is not something I claim to know much about, but there are two basic findings that should be of interest to all of us. They are these:

- Americans still give their individual physician an exalted position of trust.
- They have nowhere near as high a regard for doctors in general or organized medicine as such.

This attitude is really not all that surprising. Americans, to their credit, tend to rate individuals on an individual basis and are less attracted to the group to which that person belongs. They even tend to be suspicious of groups, which is not always bad either, and place their faith in the person they know rather than in the organization he or she is identified with.

Each of us can capitalize on this trust in ways that will be beneficial to medicine. If every Alabama physician, every American physician, lets his patients know how he felt about the dangers of more federal intrusions into private practice, for example, think what a total effect that would have on the public attitude toward efforts to socialize medicine, whether in one fell swoop or by inches.

The plain truth is that our collective voice derives more from our aggregate respect as individuals, so far as public attitudes are concerned, than from the policy positions of the American Medical Association. That, at least, is what the polls tell us.

But they also tell us that, as organizations go with the public, ours is less suspect than any other. While we do rate higher as individuals than as a group, we don't do at all badly as a group.

I think there is a lesson for all of us in this. And I think we should use the one-on-one influence we obviously have in our effort to preserve our profession from the certain ruin that would befall it if we chose to bury our heads in the sand.

C. A. LIGHTCAP, M.D.

PSRO: Our Responsibility and Hurdles

*William J. Perry, M.D.
Pineview Hospital
Hartselle, Alabama

With Congress still considering the effectiveness of PSRO, Alabama is among the few states that have been given another extension of some 18 months to continues its program, a testimonial to efforts expanded by its physicians.

In today's atmosphere it is a legal mandate graciously presented to us by Congress and for us to enforce. Out of this government interest, I hope we as PSRO members and active committee members can preserve some vestige of private practice for ourselves and those who follow in the field of medicine yet afford medical care to patients in a manner that meets our medical abilities and those requirements spelled out by Alabama physicians who serve on Medical Care Evaluation and Quality Assurance Committees.

The maligned Physician Advisors within the state continue to needlessly contend with smoldering unpleasant attitudes in the minds of some few physicians, almost to the point of defiance on the part of those apathetic to its cause. Armchair gossip comments like "text book medicine" and "useless documentation" seems to be favorite medical staff conversation pieces in many of our areas.

If one looks at this criticism in an appropriate mirror, it seems reasonable that textbook practice patterns and legible and appropriate documentation for acute care patients will better insure third-party reimbursements and produce a fewer number of No-Aid letters.

But when these same physicians repeat patterns of practice that are marginal, one can see why auditors of any type or educational background can pull charts that have expressed comments such as: A. Admitted because of problems at home. B. Admitted because he is not rehabitable. C. Progress notes that say no change and then for the next five days write same, same, same. D. Admitted although "big brother" probably won't allow hospitalization. E. Don't worry, you have 60 days of hospitalization and a most outstanding reason for denial, admitted for workup.

One could go on and on with such documentation but these are some of the sign posts that drop charts out of computers and put examiners on the alert and coordinators on the fence. Add to this an absolute failure on the part of the same physicians to appraise the patient of his hospitalization rights, plans for discharge and alternate plans to him or members of the family, increase the number of No-Aid letters. This general attitude may not be perculiar to all areas of the state but I suspect it persists. Lack of physician communication in education of patients appears to be a very essential facet in producing misunderstandings.

Recently, I have been taken aback by irresponsible comments of some physicians who inform patients that have requested rehearings following No-Aid letters that "the cards are stacked against you if you seek such reconsideration."

This could be a major legal problem and without reservation is indicative of poor medical ethics. This is unbelievably true and does nothing to help in the physician/advisor relationship. This implies to me it is the patient's fault or the patient feels it is the government's fault or the attending physician says it's none of his business and is the fault of the state PSRO program.

In reality, it is an absolute failure on the physician's part in total care of his patient. There is a breakdown at this decision point—end of treatment versus patients "who must go some place" and failure to relate early to this eventual disposition is a crucial point in determining lines of action that need be taken at some later date.

There have been lenient judgements in most of these hearings but there are many cases when only superficial scrutiny of charts would give one no option except to refuse extensions when acute care cannot be documented and is no longer necessary.

In closing, as physicians we are all affected by rising insurance rates.

In the annual report of 1979 of the Mutual Assurance Society of Alabama, there was a threefold increase in the number of law suits in which our society members were defendants. Dr. Crowe states that unless we rekindle the commitment made several years ago when the insurance company was formed we are faced with minimum options. He lists two: (a) spiraling round of ever increasing malpractice premiums or (b) eventual failure of the company.

My primary reason for bringing this up is that one of his three recommended items was: "as physicians, practice good medicine." This really is what the national goal for PSRO is all about and why we in Alabama should seek ways to improve this medical care within the framework of our own state PSRO organization by the utmost cooperation with those assigned to perform the task as coordinators and physician advisors in the overall program.

*Serves as Medical Advisor PSRO—North Alabama.

Pioneers in Medicine
For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine.
Some of our better known products are Ru-Tuss® and Ru-Vert® . This advertisement highlights three other products particularly useful for the family.

F-E-P CREME® **TWIN-K®** **SU-TON®**





For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin—Pramoxine HCl—Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (1/2 ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For Potassium Supplementation

TWIN-K®

Each 15 ml supplies 20 mEq of potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base.

The good tasting potassium supplement

- Designed for prophylactic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient b.i.d. dosage aid patient compliance.
- Avoids the problems of a chloride salt.

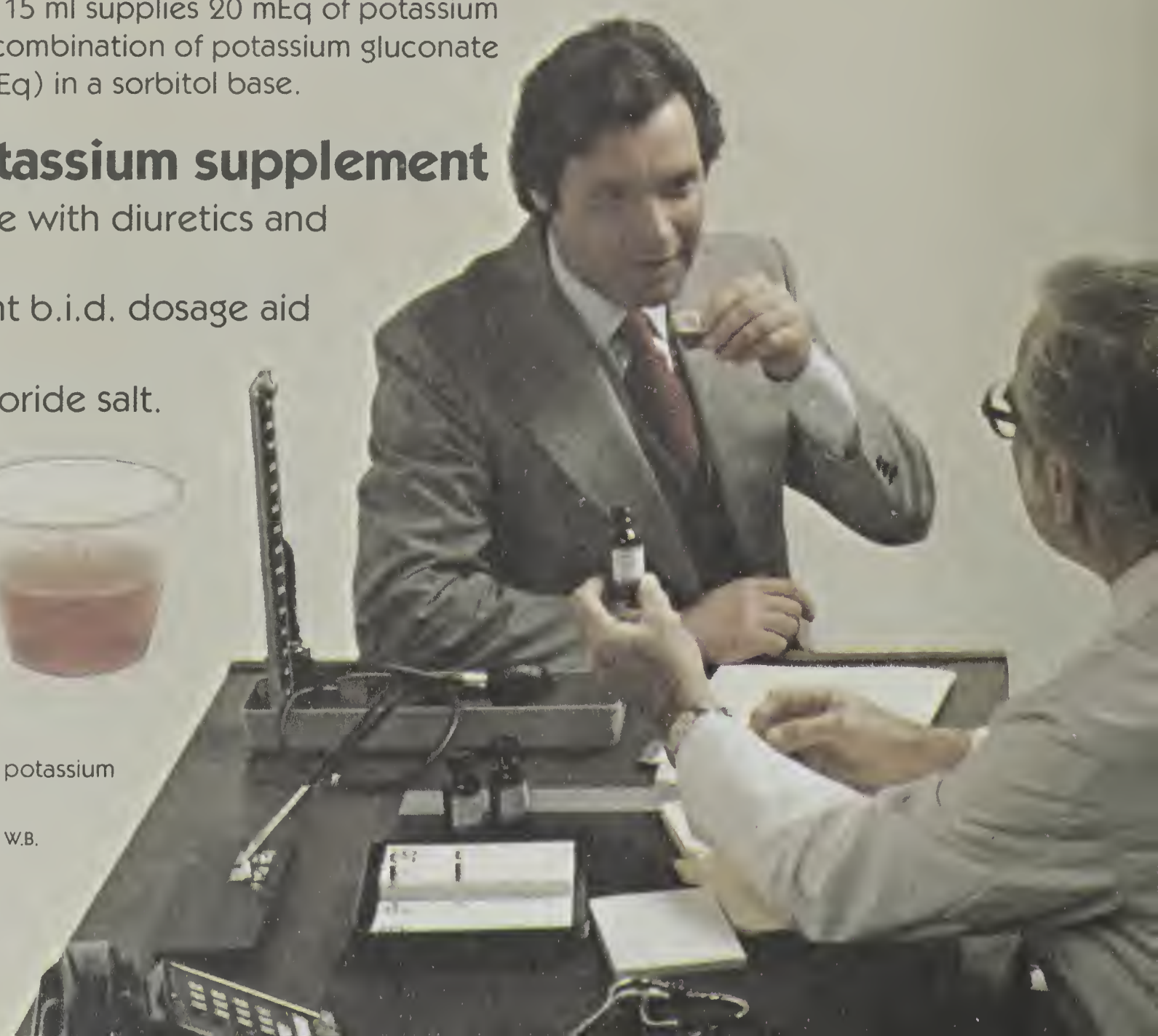
"The organic salt can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine."[1]



Note: In hypokalemic hypochloremic alkalosis, potassium chloride supplementation may be preferred.

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, p. 1959

See prescribing information on last page of this advertisement.



For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.



Please send me patient starter samples of:

☐ **F-E-P CREME®**

☐ **TWIN-K®**

☐ **SU-TON®**

Name _____

Street Address _____

City _____ State _____ Zip _____

F-E-P CREME®

DESCRIPTION: F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic, preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE:

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows, "Possibly effective": Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma; nuchal eczema and chronic eczematoid otitis externa; acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris, corporis, pedis); moniliasis; intertrigo. Final classification on the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS: Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS: This product is not for ophthalmic use. In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY: Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboatory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS: F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period. Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests.

The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine. Prolonged use of this drug may result in an overgrowth of nonsusceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS: Skin rash or hypersensitivity may occur following topical application. The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliara. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION: Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. **F-E-P Creme** is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. **F-E-P Creme (Plain)** is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED:

F-E-P Creme	F-E-P Creme Plain
½ ounce (15 gm) tubes	½ ounce (15 gm) tubes
NDC 0524-0026-51	NDC 0524-0025-51

CAUTION: Federal law prohibits dispensing without a prescription.

TWIN-K®

DESCRIPTION: Each 15 milliliter (tablespoonful) supplies 20 mEq of elemental potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base with flavoring.

INDICATIONS AND USAGE: For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS: TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS: Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8—5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since usually the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic E.K.G. and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS: Symptoms of potassium intoxication include paresthesias of the extremities, flacid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE: The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with E.K.G. changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10—20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION: The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of elemental potassium. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) or TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED: Pint bottles. NDC 0524-0021-16

CAUTION: Federal law prohibits dispensing without a prescription.

SU-TON®

DESCRIPTION: Forty-five ml of SU-TON contains the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE: SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS: Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS: The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS: Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS: Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE: Drug dependence has not been reported with SU-TON.

OVERDOSAGE: Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION: One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED:

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16

CAUTION: Federal law prohibits dispensing without a prescription.

AP-001 5-80 Printed in U.S.A.

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Shreveport, Louisiana 71106

Pioneers in medicine for the family

ALABAMA LIONS EYE BANK

By—Harvey G. Coker, M.D., Eye Bank Medical Advisor

Each year about three hundred Alabamians receive corneal transplants. Their cornea may have been scarred from an injury or they may have had an infection or a degenerative disease resulting in a corneal opacity.

In the United States, the first corneal transplant was performed in New York by Dr. Townley Paton in 1944. Since then, increasing success with corneal transplantation has lead to a greater demand for eye tissue. Hence, eye banks were established to harvest and distribute this tissue to ophthalmologists. In 1961, the Eye Bank Association of America was formed under the auspices of the American Ophthalmological Association. This association, composed of laymen as well as ophthalmologists, have greater uniformity of purpose, organization, equipment, publicity, and research. Today there are 68 eye banks in the United States.

In 1969, the Alabama Lions Eye Bank, a division of Alabama Sight Conservation Association, was formed to provide and distribute tissue throughout the state. Offices for the program are housed in the Alabama Lions Eye Clinic building of the Eye Foundation Hospital. A branch of the program was established at Providence Hospital on June 1, 1979.

Donor Tissue

The interval between death and enucleation should be as short as possible, preferably less than six hours. If enucleation is delayed beyond six hours, cooling of the body or ice packs over both lids can extend the life of the tissue. Most corneal tissue is used fresh within 24 to 48 hours of enucleation. Various methods of corneal preservation can extend the viability of the corneas by three or four days by bathing in special refrigerated media. Other investigative techniques of tissue culture or freezing prolong the life of corneal tissue from one to six months. In the 1978-79 fiscal year, 70% of all tissue donated to the Alabama Eye Bank was utilized for corneal transplantation. The remainder was utilized for laboratory and surgical research.

Corneal transplantation has been performed for over 100 years, but only in the past 15 years have the high degrees of sophistication, necessary for transplantation, been generally available. The operation requires a microscope, delicate instrumentation, fine synthetic sutures, a fine surgical needle and an array of ancillary surgical equipment. These technical advances have permitted the methodological changes to improve substantially the surgical outcome. Although these innovations have improved the prognosis for surgery, other serious problems such as glaucoma (increase in intraocular pressure), immunologic rejection of the tissue, etc. still present difficult and vexing transplantation problems. Success in corneal transplantation is usually quite high but mostly dependent upon the nature of the disease process.

Research in Corneal Transplantation

Success in penetrating keratoplasty largely depends on transfer of a viable single layer of cells on the posterior cornea, the endothelium. To evaluate the donor endothelium before transplantation, newer techniques employ specular microscopic photography for density counting of endothelial cells.

Attempts to retain the greatest number of endothelial cells for transplant continue to spur research in corneal preservation. The search for circulating antibodies in the corneal recipients forms the basis for new studies designed to match donor tissue to recipients.

Corneal Transplant Myths

Only the cornea of the eye may be successfully transplanted as a functional tissue. However, the sclera may be used for other purposes, especially in plastic surgery. Transplantation of an entire eye is not possible. As the age of the donor increases the number of viable endothelial cells decreases. In spite of this fact, if the donor shows no corneal disease, then there is no effect of age of the donor on the success of the transplant. Patients who have died of cancer may be transplant donors except those with lymphomas, leukemic diseases or cancer of the eye. Enucleation of eyes leaves no cadaveric disfigurement.

Pledges

Alabamians can pledge their eyes by completing and carrying an Eye Bank donor card, a uniform donor card, and by filing an affidavit when renewing a driver's license. However, unless the next of kin is informed of the donor's decision, often the gift is forgotten. The next of kin must sign a consent form which meets the specifications of the Alabama Uniform Anatomical Gift Act.

Physicians can play an important role in the sight restoration program of the Eye Bank. The task of talking with the family upon the death of a family member, is a difficult one but is one that can mean sight to a blind Alabamian. Often the family finds comfort in knowing that their deceased loved one has made a contribution to the living.

For more information, contact the Alabama Lions Eye Bank at 708 South 18th Street, Birmingham, Alabama 35233 (205) 933-8251 (Twenty-four hour number).

Dr. Winston Edwards: Larger Than Life

By William H. McDonald

If you've never heard of a logger's cant hook, a basket-maker's froe or a carpenter's preacher, and you happen to need one, the man to see is Winston A. Edwards, M.D., of Wetumpka, Ala.

Or if you want advice on some of the finer points of blacksmithing, an almost lost art, or consultation on building a log house, a rock chimney, or proven techniques in farming, or irrigation—or just about anything—Dr. Edwards is you man.

At age 68, he is as strong and sturdy as an oak and as close to a rural Rennaissance Man as you are likely to find. Dr. Edwards loves and respects tools. He collects them by the hundreds, knowing that many of the epochs of man's upward climb from the primordial bog are marked by the material from which he made his tools—Stone Age, Bronze Age, Iron Age.

It was, after all, the evolution of the opposable thumb, enabling men's remote ancestors to grip the crude tools he found or fashioned, that may have been more significant over the long haul than the evolution of the brain. Dr. Edwards will tell you there have been more good craftsman than thinkers in the history of the planet. Man somehow learned to use his hands better than his reason, possibly because he enjoyed it more and the rewards were more tangible and immediate.

When in Doubt, Try

During a recent visit to his farm retreat on Lake Jordan, I was admiring a huge basket used for harvesting some of the abundant produce from his 12-acre "garden" (most of the yield to be given away to patients and friends).

I hadn't seen a basket like that, one that strong and seemingly indestructible, since childhood.

"Made it myself," Dr. Edwards said, matter of factly. "Cut the wood, stripped it and wove it myself. Made four, then quit. Tell you one thing: if you ever get in an argument with a basket-maker, run. His hands would be so strong he'd tear you apart. Damned hard work."

Under questioning, Dr. Edwards told how he came by acquiring **that** skill, added to the many others he has. He needed a good basket and remembered watching one of his father's old family retainers make baskets years ago. Cudgeling his memory, he figured he could do it and set about selecting the right wood. Only white oak will do and the tree has to be carefully chosen. He was soon to discover the great hand strength it takes to force the strips to do his bidding.

If you want to make baskets like they used to be made, here's the way to do it: first, select the best and most supple white oak you can find. Chop it down. Split the timber lengthwise with a froe. Then, take these chunks and begin subdividing them into strips, using knives. Then . . . .

. . . Maybe you'd better call Dr. Edwards.

No Stranger He

A great bear of a man, whose weight has been known to rise to 260 when he is overly tempted by the pleasures of the table, but now stands resolutely at 240, Dr. Edwards is loved and respected in his county, in contiguous counties, and wherever there are people perceptive to human quality, to strength, and to good will. To ride around with him on his appointed rounds is to meet, literally, everyone. Children holler at him, adults wave, shopkeepers stop to chat—as it must have been in the older days of medicine.

Stopping at a service station to fuel his dusty green sedan of uncertain vintage, Dr. Edwards politely declined the lady proprietor's offer to pump gas for him. He nimbly sprang out of the car and had the hose in his giant hand before she could finish the question, the answer to which she already knew.

He exlained later that her husband, a trucker, had recently been killed in the tragic highway crash of an 18-wheeler. Of course, that was Dr. Edward's explanation. But it's hard to imagine him permitting a woman to do a man's work for him if she had had a dozen healthy husbands.

Dr. Edwards is solidly hewn of Alabama stock, the kind that doesn't walk too quietly perhaps, rarely carries a big stick and is always a gentleman to the womenfolk.

Gruff, blunt, occasionally loud, Dr. Edwards has the gentle heart of a rustic poet. He says medicine has been good for him, because, dammit, he has been good for medicine. And that's just the way it ought to be. Not a soul in all the lush hills and hollows of Elmore County would gainsay that.

Dangers Within

Fearful of government intrusion, Dr. Edwards is also fearful of some of the things he thinks medicine is doing to itself. Overdoctoring, for one thing. Overcharging, for another.

He believes some doctors overprescribe without taking the time to determine whether nature couldn't do the

job better or without really knowing the patient's needs. From beneath a cabinet in his examination room, he produced a large cardboard carton, the size of an apple box, filled with prescription drugs—thousands of dollars worth, he said. He had retrieved all the pills and potions from one elderly patient, who had the time and money to doctor-shop before turning to Dr. Edwards. Many of the bottles had never been opened.

And Dr. Edwards is convinced that the high charges of some physicians invite trouble, from the public and from politicians.

Man For All Seasons

Dr. Edwards can talk for hours about the history of his county and the lore of tools and craftsmanship. Many fine old homes of an earlier day, he says, fondling an ancient carpenter's plane, came equipped with a complete set of matched planes. When the builder turned over the house to the owner, he delivered the box of planes with them. Any carved or milled surface could be precisely reproduced for repair of additions.

That kind of craftsmanship and attention to detail brings a light to Dr. Edwards eyes. His shop at his lake retreat is filled with old tools. Hundreds of them, collected over many years—blacksmith's tools, carpenter's tools, farm implements, chisels, saws, drills, augurs, spikes, all manner of ingenious devices for special functions.

Unconquerable Spirit

As a young farm boy in Elmore County around World War I, he was bitten by a poisonous snake. The best medical advice his distraught parents could get from every doctor they could fetch was that young Winston would surely die. For a week, as he lay unconscious, medicine's conventional wisdom seemed accurate.

But you do have some doubts when you watch Dr. Edwards manhandle a huge log that would be a heavy load for two strong men half his age; or wrap those enormous hands around the handle of a hoe or axe and let fly at his objective of the moment. All his hand tools are equipped with his own wooden handles, larger and box shaped, for a better grip. When Dr. Edwards swings, he needs a good hold to protect the lives of innocent bystanders in the next county.

But those doctors of long ago were misled by the tyranny of the norm. **Most** children of his age probably would have died at that time. But **most** children are not born to be giants—in physical stature, determination, generosity of nature, in energy and drive or in Dr. Edward's guileless faith that almost nothing is impossible if a man sets his mind to it.





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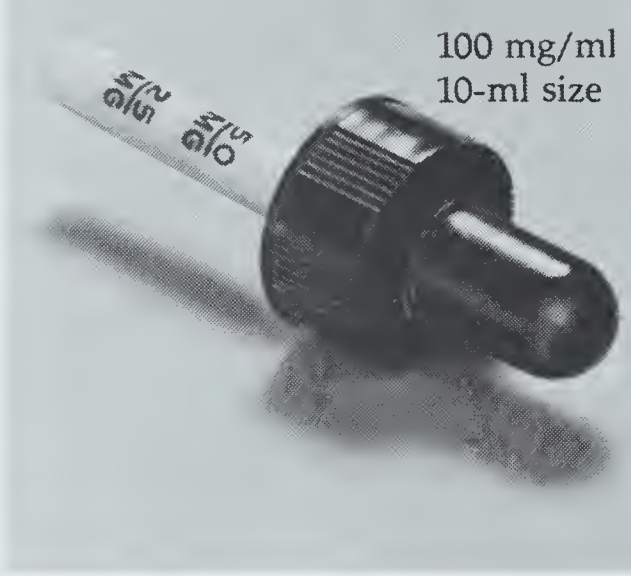


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Health and Safety Tip

From the American Medical Association

535 North Dearborn Street/Chicago, Illinois 60610

Air Travelers Face Jet Lag Fatigue

Jet Lag Is Hazard

The most obvious contributor to stress in the modern world travel style is "jet lag fatigue."

An air traveler who departs from New York for Italy at 5:30 p.m. crosses seven time zones during a seven-hour flight, and arrives in Rome at 7:30 a.m. Rome time. But it is 12:30 a.m. in New York, the middle of the night for the traveler.

There is great variability in the effects of time zone changes and in one's speed of adjustment, the American Medical Association points out. The young adjust easily; older individuals more slowly.

Tourists planning months in advance for an overseas vacation should take conditioning exercises; a two to three-week program of walking up to three miles a day. Avoid the Bon Voyage party, unless it is given two or three days prior to departure.

In flight, remember that two drinks at cruising altitude are the equivalent of three or four on the ground. Eat moderately and drink sparingly. Get up and walk about the plane frequently.



The single most important requirement on arrival at the overseas destination is sleep and rest. A flight to Europe should be followed by a good night's sleep before sightseeing or business.

A simple formula often is used by tour groups. It calls for rest stops of a day after crossing four to six time zones, and two days after seven to ten zones. As crossings approach a complete reversal of the day-night cycle, three days of rest are welcomed by any traveler, particularly if in late middle age or afflicted with insomnia.

North-south flights cross no time zones, or only one, and should result in only normal fatigue.

A pretravel health review with your physician may help forestall health emergencies while on tour. There are some individuals who should not board long jet flights. These include women beyond the eighth month of pregnancy, infants less than two weeks old, individuals with contagious disease, those with large unsupported hernias, psychotics, acute respiratory infection patients (severe colds or flu), those with certain heart problems (ask your doctor), and poorly stabilized convalescent postoperative or handicapped people.

Jet lag fatigue may be held to a minimum by proper planning and proper rest on arrival.

August, 1980
Frank Chappell
Science News Editor
AMA



getting back to business

with symptomatic relief of moderate anxiety with depression

Rapid relief of anxiety

The tranquilizer component alleviates symptoms of anxiety within a few days without apparent dulling of mental acuity. Hypnotic effects appear to be minimal, particularly in patients permitted to remain active. However, TRIAVIL may impair mental and/or physical abilities required for the performance of hazardous tasks.

Dependable antidepressant action

The antidepressant component relieves symptoms of depression such as poor concentration and feelings of hopelessness as well as early morning awakening; adequate relief of symptoms may take a few weeks or even longer.

for moderate anxiety with depression

dual-action **Triavil**®

containing perphenazine and amitriptyline HCl

Treatment with TRIAVIL—a balanced view

TRIAVIL is contraindicated in CNS depression from drugs, in the presence of evidence of bone marrow depression, and in patients hypersensitive to phenothiazines or amitriptyline. It should not be used during the acute recovery phase following myocardial infarction or in patients who have received an MAOI within two weeks. Patients with cardiovascular disorders should be watched closely. Not recommended in children or during pregnancy. TRIAVIL may enhance the response to alcohol. Antiemetic effects may obscure toxicity due to overdosage of other drugs or mask other disorders. The possibility of suicide in depressed patients remains until significant remission occurs. Such patients should not have access to large quantities of the drug. Hospitalize as soon as possible any patient suspected of having taken an overdose.

MSD
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Please see the following page for a brief summary of prescribing information.

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by providing symptomatic relief of moderate anxiety with depression

dual-action Triavil®

containing perphenazine and amitriptyline HCl

helps patients get back to business

Available:
TRIAVIL® 2-25: Each tablet contains
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TRIAVIL® 2-10: Each tablet contains
2 mg perphenazine and 10 mg amitriptyline HCl.
TRIAVIL® 4-50: Each tablet contains
4 mg perphenazine and 50 mg amitriptyline HCl.
TRIAVIL® 4-25: Each tablet contains
4 mg perphenazine and 25 mg amitriptyline HCl.
TRIAVIL® 4-10: Each tablet contains
4 mg perphenazine and 10 mg amitriptyline HCl.

CONTRAINDICATIONS: Central nervous system depression from drugs (barbiturates, alcohol, narcotics, analgesics, antihistamines); evidence of bone marrow depression; known hypersensitivity to phenothiazines or amitriptyline. Should not be given concomitantly with a monoamine oxidase inhibitor since hyperpyretic crises, severe convulsions, and deaths have occurred from such combinations. When used to replace a monoamine oxidase inhibitor, allow a minimum of 14 days to elapse before initiating therapy with TRIAVIL. Therapy should then be initiated cautiously with gradual increase in dosage until optimum response is achieved. Not recommended for use during acute recovery phase following myocardial infarction.

WARNINGS: TRIAVIL should not be given concomitantly with guanethidine or similarly acting compounds since TRIAVIL may block the antihypertensive action of such compounds. Use cautiously in patients with history of urinary retention, angle-closure glaucoma, increased intraocular pressure, or convulsive disorders. Dosage of anticonvulsive agents may have to be increased. In patients with angle-closure glaucoma, even average doses may precipitate an attack. Patients with cardiovascular disorders should be watched closely. Tricyclic antidepressants, including amitriptyline HCl, have been reported to produce arrhythmias, sinus tachycardia, and prolongation of conduction time, particularly in high doses. Myocardial infarction and stroke have been reported with tricyclic antidepressant drugs. Close supervision is required for hyperthyroid patients or those receiving thyroid medication. May impair mental and/or physical abilities required for performance of hazardous tasks, such as operating machinery or driving a motor vehicle. In patients who use alcohol excessively, potentiation may increase the danger inherent in any suicide attempt or overdosage. Not recommended in children or during pregnancy.

PRECAUTIONS: Suicide is a possibility in depressed patients and may remain until significant remission occurs. Such patients should not have access to large quantities of this drug.

Perphenazine: Should not be used indiscriminately. Use with caution in patients who have previously exhibited severe adverse reactions to other phenothiazines. Likelihood of some untoward actions is greater with high doses. Closely supervise with any dosage. The antiemetic effect of perphenazine may obscure signs of toxicity due to overdosage of other drugs or make more difficult the diagnosis of disorders such as brain tumor or intestinal obstruction. A significant, not otherwise explained, rise in body temperature may suggest individual intolerance to perphenazine, in which case discontinue.

If hypotension develops, epinephrine should not be employed, as its action is blocked and partially reversed by perphenazine. Phenothiazines may potentiate the action of central nervous system depressants (opiates, analgesics, antihistamines, barbiturates, alcohol) and atropine. In concurrent therapy with any of these, TRIAVIL should be given in reduced dosage. May also potentiate the action of heat and phosphorous insecticides. There is sufficient experimental evidence to conclude that chronic administration of antipsychotic drugs which increase prolactin secretion has the potential to induce mammary neoplasms in rodents under the appropriate conditions. There are recognized differences in the physiological role of prolactin between rodents and humans. Since there are, at present, no adequate epidemiological studies, the relevance to human mammary cancer risk from prolonged exposure to perphenazine and other antipsychotic drugs is not known.

Amitriptyline: In manic-depressive psychosis, depressed patients may experience a shift toward the manic phase if they are treated with an antidepressant. Patients with paranoid symptomatology may have an exaggeration of such symptoms. The tranquilizing effect of TRIAVIL seems to reduce the likelihood of this effect. When amitriptyline HCl is given with anticholinergic agents or sympathomimetic drugs, including epinephrine combined with local anesthetics, close supervision and careful adjustment of dosages are required. Paralytic ileus may occur in patients taking tricyclic antidepressants in combination with anticholinergic-type drugs.

Caution is advised if patients receive large doses of ethchlorvynol concurrently. Transient delirium has been reported in patients who were treated with 1 g of ethchlorvynol and 75-150 mg of amitriptyline HCl.

Amitriptyline HCl may enhance the response to alcohol and the effects of barbiturates and other CNS depressants.

Concurrent administration of amitriptyline HCl and electroshock therapy may increase the hazards associated with such therapy. Such treatment should be limited to patients for whom it is essential. Discontinue several days before elective surgery if possible. Elevation and lowering of blood sugar levels have both been reported. Use with caution in patients with impaired liver function.

ADVERSE REACTIONS: Similar to those reported with either constituent alone.
Perphenazine: Extrapyramidal symptoms (opisthotonus, oculogyric crisis, hyperreflexia, dystonia, akathisia, acute dyskinesia, ataxia, parkinsonism) have been reported and can usually be controlled by the concomitant use of effective antiparkinsonian drugs and/or by reduction in dosage, but sometimes persist after discontinuation of the phenothiazine.

Tardive dyskinesia may appear in some patients on long-term therapy or may occur after drug therapy with phenothiazines and related agents has been discontinued. The risk appears to be greater in elderly patients on high-dose therapy, especially females. Symptoms are persistent and in some patients appear to be irreversible. The syndrome is characterized by rhythmical involuntary movements of the tongue, face, mouth, or jaw. Involuntary movements of the extremities sometimes occur. There is no known treatment for tardive dyskinesia; antiparkinsonism agents usually do not alleviate the symptoms. It is advised that all antipsychotic agents be discontinued if the above symptoms appear. If treatment is reinstituted, or dosage of the particular drug increased, or another drug substituted, the syndrome may be masked. Fine vermicular movements of the tongue may be an early sign of the syndrome. The full-blown syndrome may not develop if medication is stopped when lingual vermiculation appears.

Other side effects are skin disorders (photosensitivity, itching, erythema, urticaria, eczema, up to exfoliative dermatitis); other allergic reactions (asthma, laryngeal edema, angioneurotic edema, anaphylactoid reactions); peripheral edema; reversed epinephrine effect; hyperglycemia; endocrine disturbances (lactation, galactorrhea, gynecomastia, disturbances of menstrual cycle); altered cerebrospinal fluid proteins; paradoxical excitement; hypertension, hypotension, tachycardia, and ECG abnormalities (quinidine-like effect); reactivation of psychotic processes; catatonic-like states; autonomic reactions, such as dry mouth or salivation, headache, anorexia, nausea, vomiting, constipation, obstipation, urinary frequency or incontinence, blurred vision, nasal congestion, and a change in pulse rate; other adverse reactions reported with various phenothiazine compounds, but not with perphenazine, include grand mal convulsions, cerebral edema, polyphagia, pigmentary retinopathy, photophobia, skin pigmentation, and failure of ejaculation.

The phenothiazine compounds have produced blood dyscrasias (pancytopenia, thrombocytopenic purpura, leukopenia, agranulocytosis, eosinophilia); and liver damage (jaundice, biliary stasis).

Pigmentation of the cornea and lens has been reported to occur after long-term administration of some phenothiazines. Although it has not been reported in patients receiving TRIAVIL, the possibility that it might occur should be considered.

Hypnotic effects, lassitude, muscle weakness, and mild insomnia have also been reported.

Amitriptyline: Note: Listing includes a few reactions not reported for this drug, but which have occurred with other pharmacologically similar tricyclic antidepressant drugs and must be considered when amitriptyline is administered. *Cardiovascular:* Hypotension; hypertension; tachycardia; palpitation; myocardial infarction; arrhythmias; heart block; stroke. *CNS and Neuromuscular:* Confusional states; disturbed concentration; disorientation; delusions; hallucinations; excitement; anxiety; restlessness; insomnia; nightmares; numbness, tingling, and paresthesias of the extremities; peripheral neuropathy; incoordination; ataxia; tremors; seizures; alteration in EEG patterns; extrapyramidal symptoms; tinnitus; syndrome of inappropriate ADH (antidiuretic hormone) secretion. *Anticholinergic:* Dry mouth; blurred vision; disturbance of accommodation; increased intraocular pressure; constipation; paralytic ileus; urinary retention; dilatation of urinary tract. *Allergic:* Skin rash; urticaria; photosensitization; edema of face and tongue. *Hematologic:* Bone marrow depression including agranulocytosis; leukopenia; eosinophilia; purpura; thrombocytopenia. *Gastrointestinal:* Nausea; epigastric distress; vomiting; anorexia; stomatitis; peculiar taste; diarrhea; parotid swelling; black tongue. Rarely hepatitis (including altered liver function and jaundice). *Endocrine:* Testicular swelling and gynecomastia in the male; breast enlargement and galactorrhea in the female; increased or decreased libido; elevated or lowered blood sugar levels. *Other:* Dizziness, weakness; fatigue; headache; weight gain or loss; increased perspiration; urinary frequency; mydriasis; drowsiness; alopecia. *Withdrawal Symptoms:* Abrupt cessation after prolonged administration may produce nausea, headache, and malaise. These are not indicative of addiction.

OVERDOSAGE: All patients suspected of having taken an overdosage should be admitted to a hospital as soon as possible. Treatment is symptomatic and supportive. However, the intravenous administration of 1–3 mg of physostigmine salicylate is reported to reverse the symptoms of tricyclic antidepressant poisoning. Because physostigmine is rapidly metabolized, the dosage of physostigmine should be repeated as required particularly if life-threatening signs such as arrhythmias, convulsions, and deep coma recur or persist after the initial dosage of physostigmine. On this basis, in severe overdosage with perphenazine-amitriptyline combinations, symptomatic treatment of central anticholinergic effects with physostigmine salicylate should be considered.

J9TR33 (DC6613215)

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ISCHEMIC OPTIC NEUROPATHY

Lanning B. Kline, M.D.

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Abstract

Ischemic optic neuropathy is a frequent cause of visual loss in the presenescent and elderly population. Understanding this clinical entity is important as it may present to a variety of physicians, including general practioners, internists, neurologists, neurosurgeons, and opthalmologists. A classification of ischemic optic neuropathy is outlined, with particular attention focused on two specific types: (1) idiopathic ("arteriosclerotic"), (2) arteritic (cranial arteritis). Guidelines are presented to distinguish the two, and therapeutic considerations are discussed. Occurrence of ischemic optic neuropathy in one eye and then the other produces a "pseudo-Foster Kennedy Syndrome". This clinical picture must be recognized and these patients not subjected to invasive neuroradiographic procedures.

Ischemic optic neuropathy (ION) is an important and frequent cause of sudden and often catastrophic visual loss in middle and late life.[1-3] It is characterized by infarction of the anterior portion of the optic nerve, presenting acutely with optic disc swelling. Although unrelated to inflammation, demyelination, or compression by a mass lesion, ION may suggest intracranial disease to those unfamiliar with its clinical profile and lead to unnecessary neuroradiographic examinations.

Classification of ION

ION may occur in a variety of clinical settings (Table I). Although an arteritic form of ION is definable by clinical and laboratory criteria, the non-arteritic, idiopathic form is by far the more common. It is these two types of ION which form the basis of this report.

Idiopathic ("Arteriosclerotic") ION

A 65-year-old male reported the sudden appearance of "blurred vision" in the lower portion of his right visual field. There was no associated ocular pain or headache. The patient's general health was excellent. Neuro-ophthalmologic testing revealed best corrected vision of 20/40, right eye, 20/20, left eye. There was a right relative afferent pupillary defect (Marcus Gunn), and visual fields demonstrated an inferior altitudinal scotoma on the right (Fig. 1). A swollen right optic disc was seen on fundus examination (Fig. 2). Blood pressure was 120/75, and erythrocyte sedimentation rate (Westergren) was 3 mm/hr.

This patient exemplifies many of the characteristics of the idiopathic form of ION (Table 2). Occurring primarily in the 7th decade of life, this form of ION rarely may affect individuals as early as the 5th decade. Typically, the patient reports abrupt, painless monocular visual loss which may progress over the next few days and then becomes fixed. Visual field testing most frequently demonstrates a large nerve fiber bundle defect, often with involvement of central fixation. The involved disc is swollen, either segmently or diffusely, with flame hemorrhages. As the disc edema resolves optic atrophy ensues.

The ciliary branches of the ophthalmic artery are the primary blood supply to the optic nerve head.[2] Although pathologic confirmation is lacking, insufficiency of the ciliary circulation, possibly due to arteriosclerosis, is postulated as the pathogenetic mechanism of idiopathic ION. While there is no clear-cut relationship between idiopathic ION and carotid occlusive disease, approximately one-half of patients with idiopathic ION have some degree of hypertension.[1,3]

At present, efforts at treatment have proved unrewarding. Although corticosteroids, anticoagulants, and vasodilators have been employed, there is no evidence that any affect the course of this disease.

Arteritic ION

A 71-year-old female reported the sudden appearance of a "skim" in front of her right eye which gradually worsened over the next 6 days. During the previous month she noted intermittent headaches, and right jaw pain which she attributed to poor-fitting dentures. There was no history of weakness, fatigue, myalgias, or arthralgias. Neuro-ophthalmologic examination revealed best corrected vision of light perception, right eye, 20/20, left eye. There was a right relative afferent pupillary defect (Marcus Gunn). Visual field testing demonstrated only a temporal island of field remaining on the right, while the left visual field was normal. The right optic disc demonstrated pallid swelling (Fig. 3) while the left idsc was unremarkable. Found to have an erythrocyte sedimentation rate (Westergren) of 65 mm/hr., a temporal artery biopsy was performed and revealed

changes consistent with cranial arteritis (Fig. 4). The patient was begun on corticosteroid therapy.

The arteritic variety ION affects the elderly, usually in the 8th decade of life (Table 2). While the visual loss is abrupt and painless, it tends to be more severe than idiopathic ION. The optic disc swelling is often pallid, with only occasional flame hemorrhages (Fig. 3).

It is critical to determine whether ION is due to cranial arteritis, because prompt corticosteroid therapy may restore some degree of vision, avert visual loss in the other eye, and improve long-term systemic morbidity and mortality.[2,4] The physician must be attuned to complaints of headache, weight loss, arthralgia, fever, scalp tenderness, and jaw pain precipitated by chewing or talking (masseter "claudication"). Myalgias and proximal muscle weakness may signify polymyalgia rheumatica.[5]

TABLE 1

CLASSIFICATION OF ISCHEMIC OPTIC NEUROPATHY

I. **ARTERIAL DISEASE**
- ARTERITIS
  - CRANIAL ARTERITIS
  - COLLAGEN DISEASES
  - SYPHILLIS
  - HERPES ZOSTER
- "ARTERIOSCLEROSIS"—IDIOPATHIC
- DIABETES MELLITUS
- MALIGNANT HYPERTENSION
- MIGRAINE

II. **HYPOTENSION/HYPOVOLEMIA**
- MASSIVE BLOOD LOSS
- CARDIAC INSUFFICIENCY
- SURGICAL HYPOTENSION
- ANEMIA

III. **OTHER**
- POST-CATARACT SURGERY

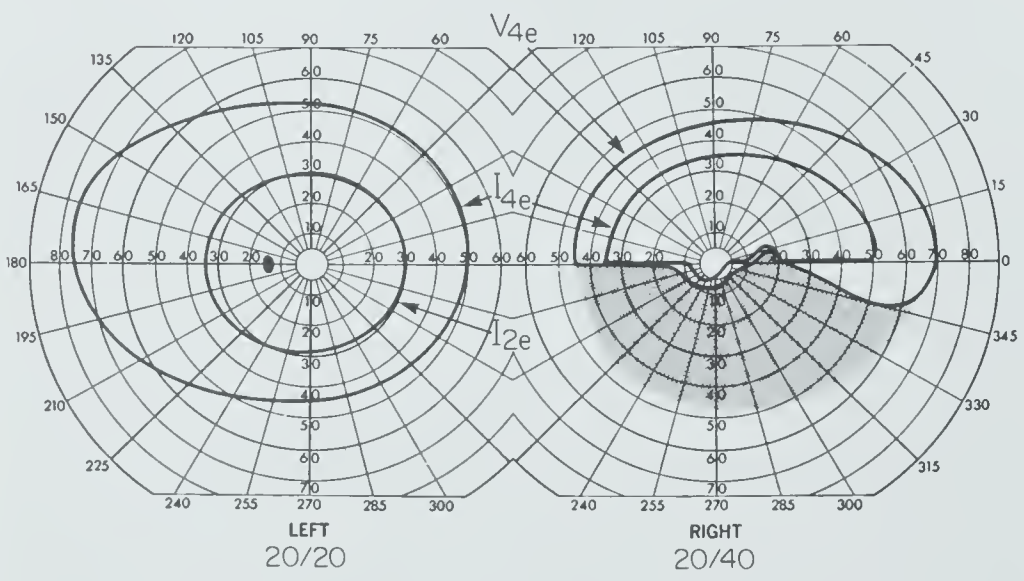


Figure 1. Visual fields reveal an inferior nerve fiber bundle (altitudinal) scotoma on the right. The left visual field is normal.

TABLE 2
CHARACTERISTICS OF ISCHEMIC OPTIC NEUROPATHY*

	Idiopathic ("Arteriosclerotic")	Cranial Arteritis
Age Peak	60-70 Years	70-80 Years
Visual loss	Minimal to severe	Usually severe
Involvement of second eye	Approximately 40%	Approximately 75%
Acute Fundus	Swollen disc	Swollen disc, may be pallid
Other ophthalmologic presentations	———	Central retinal artery occlusion; choroidal infarction; anterior segment ischemia
Systemic	Hypertension (approximately 50%)	Headache, malaise, weakness, weight loss, jaw pain, polymyalgia
ESR (Westergren) (mm/hr.)	Up to 40	Usually high (50-120)
Response to steroids	None	Relief of systemic symptoms; infrequent return to vision; protect other eye

*Modified from Glaser J. S.: Neuro-ophthalmology. Harper & Row, New York, 1978, chap. 5, pp. 88.

An elevated erythrocyte sedimentation rate (ESR) is characteristically found, but cranial arteritis has been observed in the setting of a normal ESR.[6,7] While the ESR gradually rises with age, a value above 40 mm/hr. (Westergren) in the elderly should be considered elevated.

Diagnostic confirmation of arteritis provided by a positive temporal artery biopsy is helpful when instituting long-term corticosteroid therapy in an elderly patient, but a negative biopsy in no way excludes a diagnosis of arteritis. Furthermore, recent evidence has clearly demonstrated that "skip areas" do occur, and this necessitates careful serial section examination of a biopsy specimen.[8]

In the appropriate clinical setting with a high index of suspicion, systemic corticosteroid therapy should be instituted immediately. High doses (80-120 mg. of prednisone daily) should be maintained for approximately 4 weeks, then tapered so long as the patient remains sympton-free and the ESR (Westergren) is below 40 mm/hr. Symptomatic response to treatment may be dramatic (within hours) with relief of headache and myalgias. Alternate day corticosteroid therapy is ineffective in the treatment of cranial arteritis.[9]

Pathologic study of cases of arteritic ION has demonstrated infarction of the anterior portion of the optic nerve and vasculitis involving the ciliary vessels.[10]

Continued on page 28



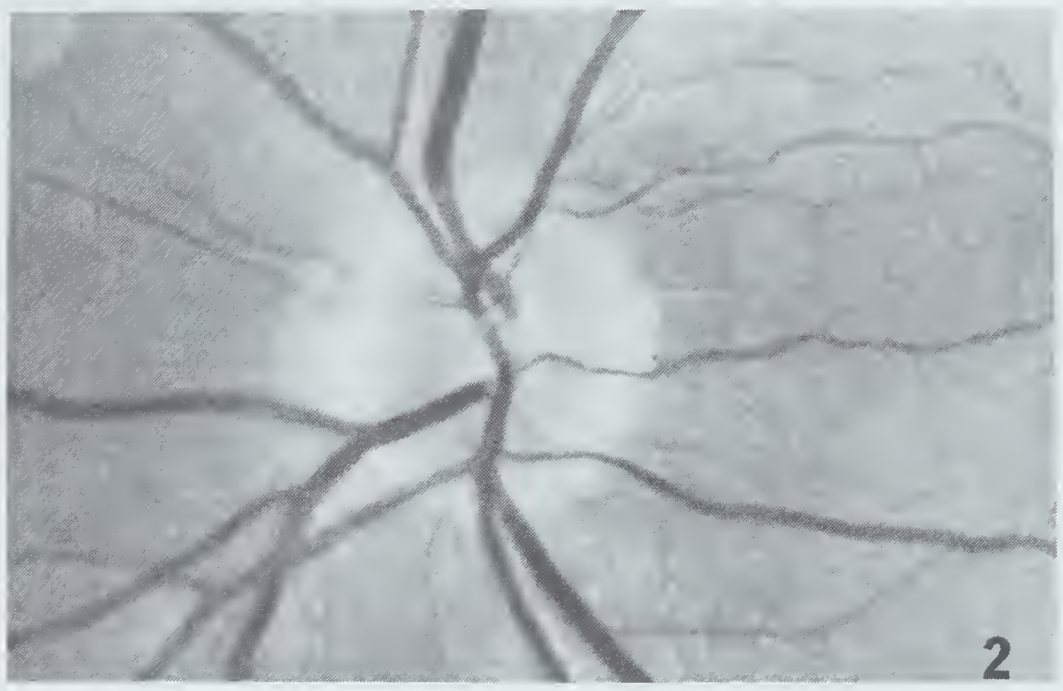


Figure 2. Right optic disc (left) is diffusely swollen with blurred margins while the left optic disc (right) is unremarkable.

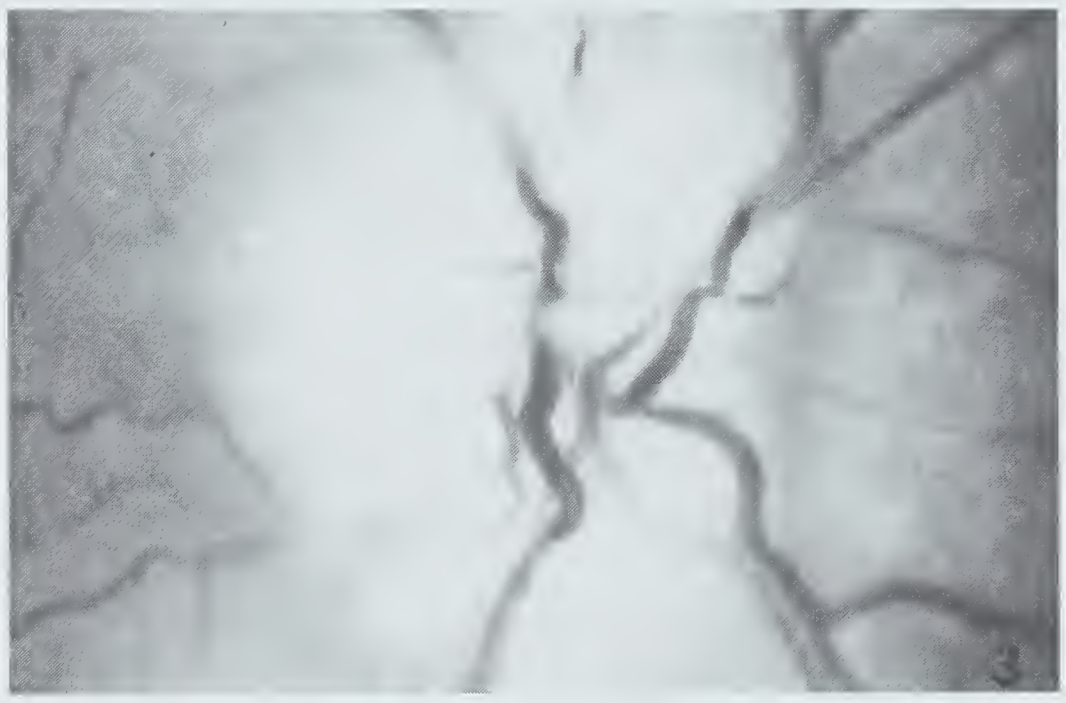
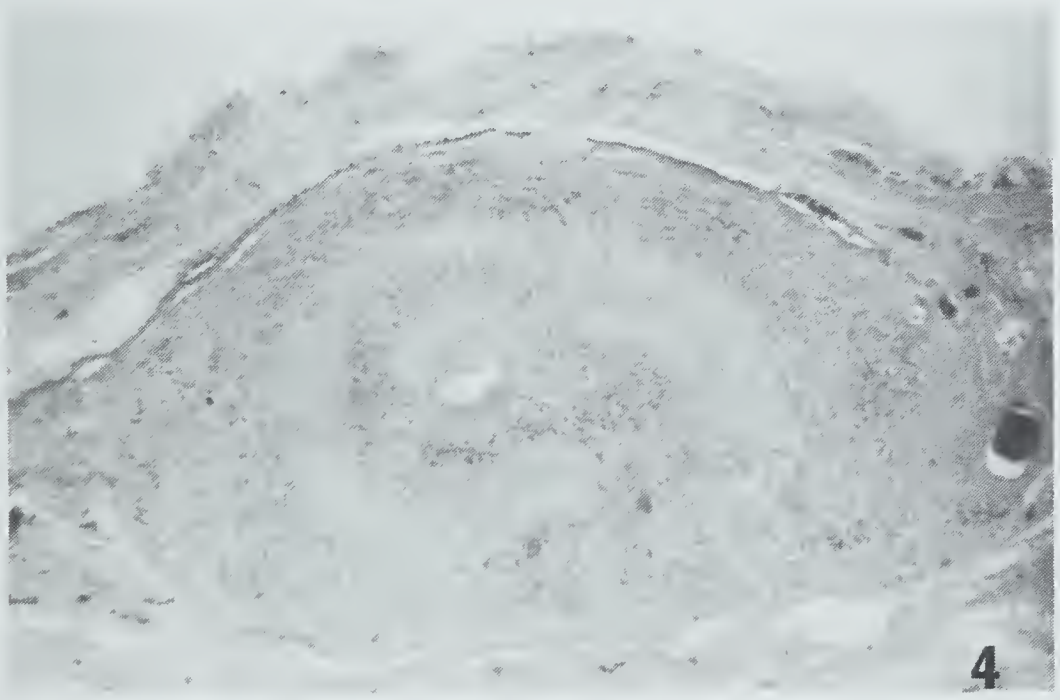
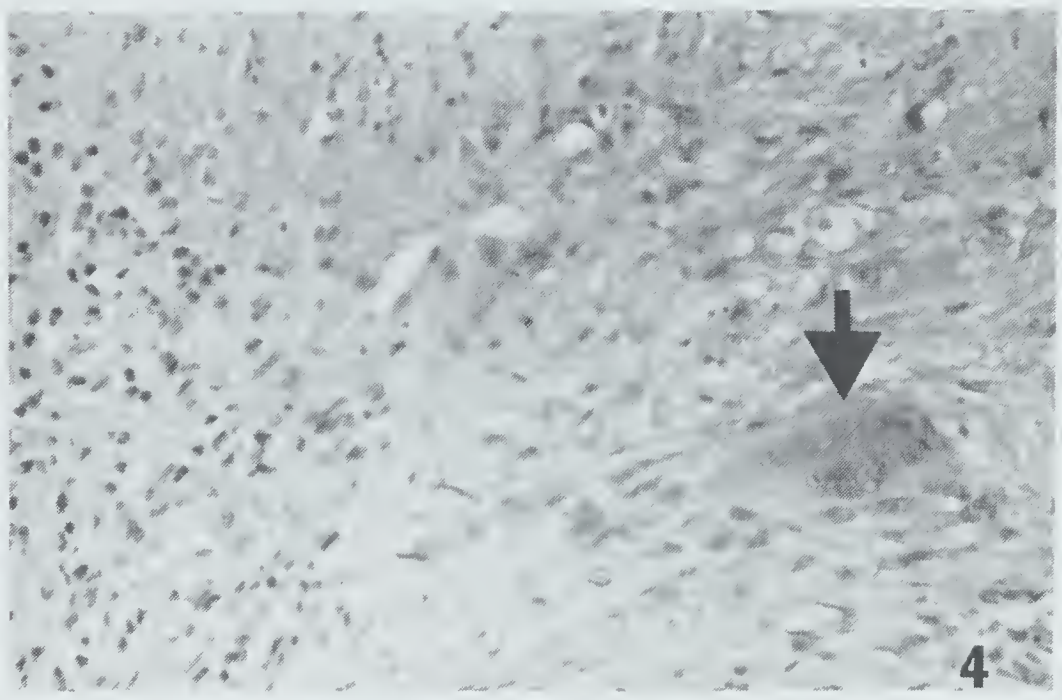


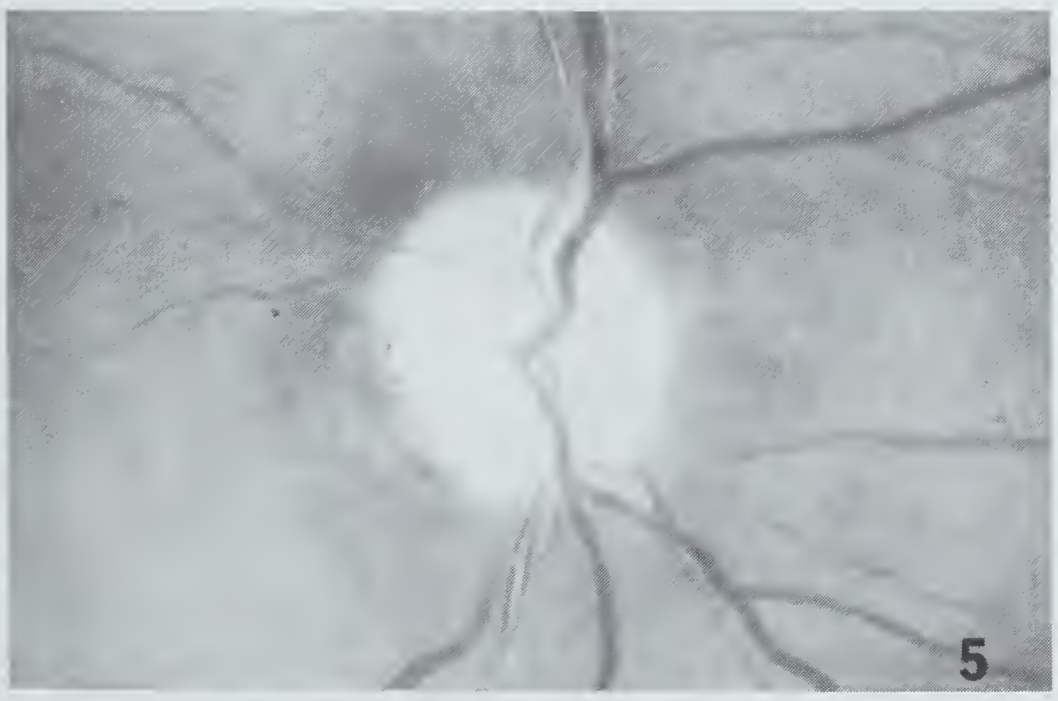
Figure 3. Pallid optic disc edema with a flame hemorrhage superiorly. This type of optic disc swelling may be seen with arteritic ION.

Figure 4. Temporal artery biopsy. Left, cross section demonstrates inflammatory infiltrate in vessel wall with narrowing of the lumen (H & E, x 75). Right, high power examination reveals granulomatous inflammation with giant cell (arrow) (H & E, x 250).

Figure 5. Right optic disc (left) is atrophic while the left optic disc (right) is swollen.









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Quinamm™

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS: For the prevention and treatment of nocturnal recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis, and static foot deformities.

CONTRAINDICATIONS: Because of the quinine content, Quinamm is contraindicated in women of childbearing potential, in pregnancy, in patients with known quinine sensitivity, and in patients with glucose-6-phosphate dehydrogenase deficiency. Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine.

PRECAUTIONS: Thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients. Recovery will follow withdrawal of the medication.
Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

ADVERSE REACTIONS: Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. If ringing in the ears, deafness, skin rash, or visual disturbances occur, the drug should be discontinued.

DOSAGE AND ADMINISTRATION:
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Product Information as of September, 1977

U.S. Patent 2,985,558

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Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral–Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d. Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

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PEDIATRIC USE: The drug has not been extensively studied in children under two years; therefore, in the treatment of children under two years the relative benefit/risk should be considered.

Adverse Reactions Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.

Dosage and Administration The same dosage schedule applies to children and adults. The tablet may be chewed, swallowed or crushed and mixed with food. For the control of pinworm (enterobiasis), a single tablet is administered orally, one time.

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† Rollo, I.M.: Drugs used in the chemotherapy of helminthiasis, in Goodman, L.S.; and Gilman, A. (eds.): *The Pharmacological Basis of Therapeutics*, ed. 5. New York, Macmillan, 1975, p. 1034.

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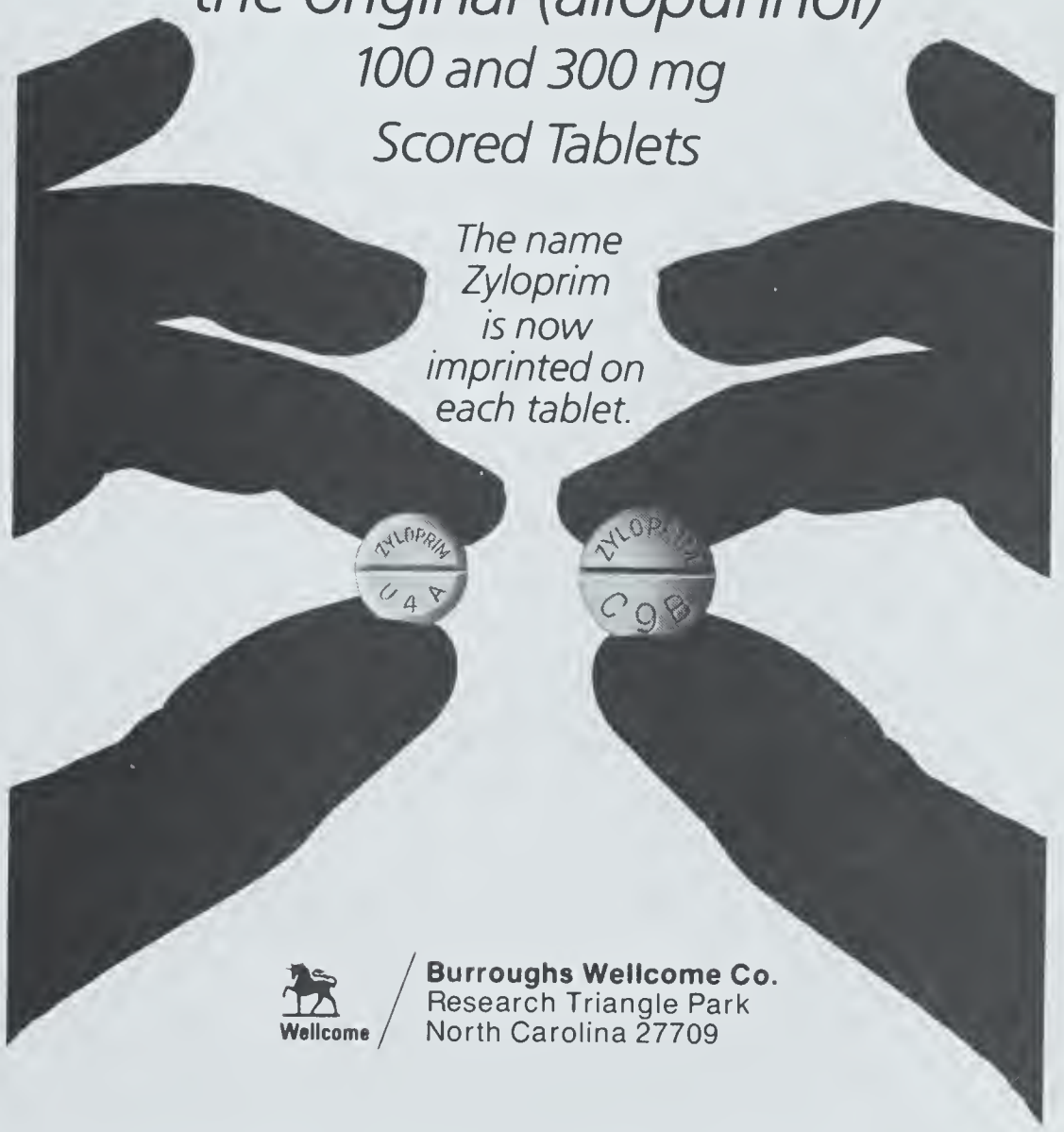
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Ischemic Optic Neuropathy

Continued from page 19

Neurological Misdiagnosis

A 72-year-old male reported sudden loss of vision on the right five years ago. He did not seek medical attention at that time and was left with poor vision in that eye. Recently, he reported sudden painless visual loss on the left. Best corrected vision was counting fingers at 2 feet, right eye, 20/70, left eye. While visual field testing demonstrated a large superior nerve fiber bundle defect with involvement of central fixation on the right, the visual field on the left was felt to be within normal limits. The right optic disc was diffusely pale while marked disc edema was noted on the left (Fig. 5). With the diagnosis of Foster Kennedy Syndrome, the patient was admitted to hospital. EEG, skull radiographs, CT scan of the brain, and cerebral angiography were unremarkable. Two weeks later, neuro-ophthalmologic testing documented best corrected vision of 20/200, left eye. The left visual field demonstrated a central scotoma and an inferior nerve fiber bundle defect, while the left optic disc remained swollen.

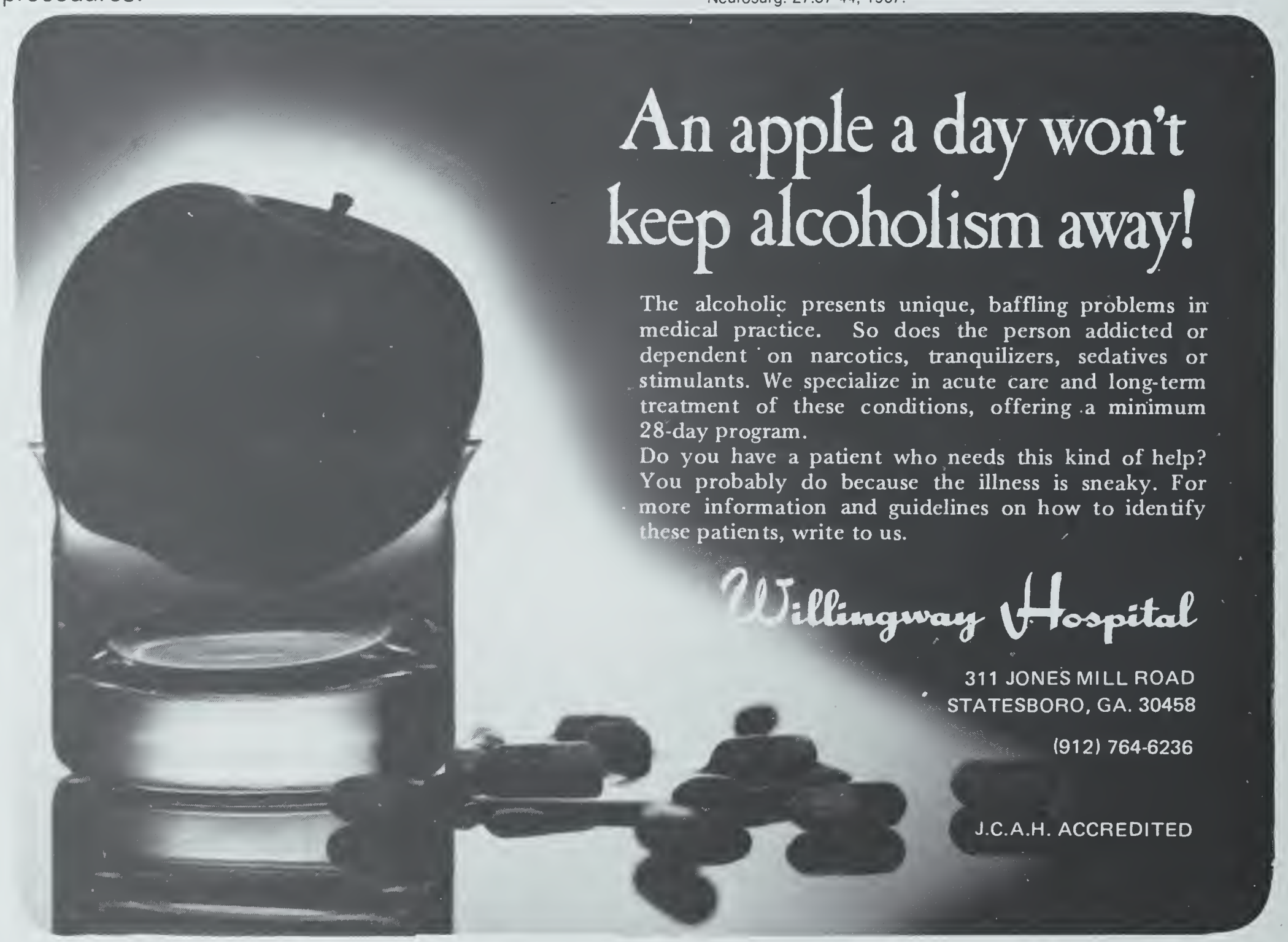
Occurrence of ION first in one eye and then the other produces a "pseudo-Foster Kennedy syndrome," i.e. optic atrophy in one eye with disc swelling in the other.[11] This may be distinguished from true papilledema (passive disc swelling associated with raised intracranial pressure) by the clinical setting of acute visual deficit. It is vital that this clinical presentation be recognized and these patients not subjected to invasive neurodiagnostic procedures.

SUMMARY

ION is characterized by sudden monocular visual loss associated with pupillary and visual field abnormalities and optic disc swelling. Two clinical forms of ION are reviewed: 1) idiopathic ("arteriosclerotic"), 2) arteritic (cranial arteritis). It is the responsibility of the physician to distinguish the patients with cranial arteritis and institute immediate high-dosage corticosteroid therapy. It is also incumbent upon the clinician to delineate ION from papilledema (passive disc swelling due to raised intracranial pressure), and refrain from unnecessary neuroradiographic procedures.

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Mutual Assurance

Truffles on the Sherbet

Gerald Weissmann, M.D.*
In Hospital Practice

Confusion sits with us at the dinner-table. The official sources of nutritional information for our republic are in deep conflict.

On the one hand, the American Heart Association has advised us to restrict our intake of fats and cholesterol, lest their deposition plug the sumps of our coronary arteries. On the other, the National Research Council of the National Academy of Sciences contends that our metabolic machinery is perfectly capable of producing enough endogenous lipid to do the job. The NRC has found no compelling reasons for us to stop gobbling the fat so lavishly supplied by the American diet.

Now, it is not easy for an amateur to pick up the nuances of this controversy. Indeed, if truth be told, it is difficult to know whether either of these views is really **interesting,** because in the lands of abundance, when we discuss diet, we speak as often of style, taste, and aesthetics—that which is usually called "cuisine"—as of nutrition or health.



We may, of course, be engaged in an essentially trivial enterprise when we consider the asethetics of cuisine. But I have always been persuaded that the trivial aspects of our culture are as engaging at those generally considered profound. Differences between the major political parties, arguments as to the wisdom of diddling with DNA, concern about the failure of nerve in the modern novel—these, we are told, are among the profound issues of modern life. When one-third of the world is insufficiently—and one-tenth excessively—nourished, how dare one, in good social conscience, occupy even part of one's mind with the style and taste of food rather than its nutritive value?

Well, while the sages of fiber and triglycerides have been urging us to transform our diet, a much more direct transformation has already taken place in the realm of **haute cuisine** (and I would suggest that an examination of how the **nouvelle cuisine** has replaced the classic repertoire is not an exercise in simple frivolity). **Haute cuisine**—the classic cooking of privileged Frenchmen, that style associated with Brillat-Savarin, Careme, Escoffier, Curnonsky, and Fernand Point—dominated the kitchens and dining rooms of Europe and America for more than a century. But in the past dozen years, a new generation of French chefs—Paul Bocuse, Michel Guerard, the freres Troisgros— promoted in large measure by two publicist of the palate, Gault and Millau, has not only established a revolution in the home country, but arranged for its successful export. From the Faubourg St.-Antoine to Michigan Boulevard, from the suburbs of Lyon to Marin County, from Eugenie-les-Bains to Hong Kong, the gospel of the light, the delicate, and the natural has spread tidings of gastric comfort and hepatic joy.

How does the new cuisine differ from the old? Well, to begin with, it has discarded the standard, slowly simmered stocks of the **ancienne cuisine,** which were based on flour or other grain products, in favor of light sauces based on natural juices and laced with morsels of fruit or green peppercorns. Secondly, the ingredients have become more diverse, thanks to the age of airfreight. The snow peas and bean sprouts of the Orient have replaced the small peas of the Loire and the flageolets of the Auvergne. Entrees have become lighter. Beefsteaks in bearnaise have yielded to thinly sliced, undercooked slivers of duck steak; olive oil has been replaced by walnut oil. Even the formerly sacrosanct order of presentation of the courses has become scrambled. On the playing fields of the new sport, salads (served at room temperature with touches of foie gras) have been moved from the bottom of the culinary batting order to where they now appear, just after, or instead of, the traditional hors d'oeuvres. The house tart is now more likely to be tiled with the omnipresent kiwi fruit from New Zealand than with the traditional apple or strawberry. The mountains of ice creams and candied chestnuts have disappeared in favor of strangely seasoned sherbets of currant or passion fruit. Surprising combinations shock the palate: Shards of mango appear amongst snippets of duck, scrolled turnips garnish the oyster. It is this rearrangement, this novelty of combinations, that has prompted a Parisian critic to define the **nouvelle cuisine** as that school of cooking "where they take the truffle out of the pate and put it on the sorbet."

*Dr. Weissmann is Professor of Medicine and Director, Division of Rheumatology, New York University School of Medicine.

But neither the change in raw materials and their preparation nor their diverting order of arrival in the course of a meal differentiates the **nouvelle** from the **ancienne cuisine** as much as the contast in formal presentation. In the past, diners were presented with elaborate salvers bearing wardrobed joints of lamb or whole fowl. These dishes frequently served only as a pretext for a ritual of tableside dissection led by a skilled thoracic surgeon, thinly disguised as a captain. In the new fashion, food is displayed as a kind of secret floral arrangement, secretly arrived at behind the scenes in the kitchen. The courses are arranged in meager splendor against the white of the plate: Color and texture compose a minimal still life on the porcelain. Each dish arrives coverd with a promising lid, and if the entire production is well directed, a team of meticulously choreographed waiters lift these lids simultaneously for all members of the dining group. How different from the traditional plates of yesteryear, upon which waiters placed eccentric heaps of brown purees to overlap the dark cuts of cow or bird. And the wines have changed as well: Fresh Vouvrays and the still, dry, white wines of Champagne, rich growths of Corbieres or the Cotes de Bourg are now served as frequently as the classic vintages of Burgundy and Bordeaux. New spirits, ranging from aquavit to vodka, brighten the sauce, and lighter aperitifs, such as kir, have replaced the customary vermouth or Pernod.

Was there ever a revolution of sensibility as abrupt as this one—A switch from heavy to light, from more to less, from content to form? One might, of course, argue that this transformation is merely another version of the quadrennial convulsion that grips the fashion industry, the rigid dialectic between the short and long hemline or the wide and narrow lapel. But if one moves from the almost ridiculous to the nearly sublime, one can observe parallels between this new metamorphosis of French cuisine and that of French painting in the 19th century.

Indeed, it was during the Second Empire that the rituals of traditional **haute cuisine** became formalized: The careers of Brillat-Savarin, author of **La Phisiologie du gout** (1825), and of the great chef Escoffier bracket the epoch. It was also in the waning days of the Second Empire, the late 1860s, that the impressionists began to revolutionize the history of painting. The Empire (a "liberal," laissez-faire arrangement of the high bourgeoisie) supported two heavy, varnish-laden schools of painting: the Academic and the Realist. Whatever their political differences, and they were extreme, exponents of both schools were united in their devotion to richly figured, heavily varnished paintings. Their canvases were drenched either in the brown stock of the Realists, such as Courbet and Daumier, or the bland, ivory glazes of Bouguereau and Meissonier, the Academics.

It was the achievement of the Impressionists (Manet, Monet, Degas, Pissarro, et al) to displace the somber icons of Courbet's peasants and Bouguereau's nymphs by means of rapidly filled images charged with light and color. Arnold Hauser, in **The Social History of Art** (Vintage, 1958), discusses their direction in terms that might also describe the **nouvelle cuisine** if translated into the language of gastronomy:

> **The representation of light, air and atmosphere, the dissolution of the evenly colored surface into spots and dabs of color, the decomposition of the local color into valeurs, into values of perspective and aspect, the play of reflected light and illuminated shadows, the quivering trembling dots and the hasty, loose and abrupt strokes of the brush . . . the fleeting, seemingly careless perception of the object and the brilliant casualness. . . .**

It is, in fact, possible to distinguish other levels of similarity between the Impressionist revolution and that effected by the **nouvelle cuisinieres.** In the first instance, the overwhelming **external** influence is that of Japan. Japanese woodcuts became known in Paris in the early 1860s. The simple forms, the white paper against which reds and blues shimmered, the calligraphic reduction of distant figures to chisel strokes— these features strongly influenced the young Impressionists, who saw in the fresh, airy images of "the floating world" a true alternative to the heavy art of the salons. A century later, the chefs of the new cuisine were similarly influenced by the lighter aesthetic of Japanese cooking. It is to the Eastern influence that we owe the meticulous. **sushi**-like arrangements of the service platter, the mix of lightly cooked, delicately seasoned ingredients, the natural flavors of which are unburdened by the varnish of flour-based stock. But if the influence of Japan is the major external influence common to both movements, can one identify social forces internal to France that might have played a similar role?

Impressionism is a creature of the 1870s, the decade when the movement found its major voices, its shaping spirits, and its firm audience. It was also a decade of middle-class retrenchment folowing a disastrous war with Germany, the siege of Paris, dissolution of the Second Empire, and the coming to power of the conservative Third Republic, that "republic without republicans." Finally, though dominant, the **haute bourgeoisie** was still in chronic fear of revolt from the Left: In 1871 the radical Communards had seized Paris briefly, only to be subdued after bloody resistance. Courbet, and the Realism he represented, could not survive 1871; indeed, the painter was briefly imprisoned for his alleged role in toppling the great column on the Place Vendome. Realism as a style was no longer palatable; its former admirers retreated to the salon painters or moved forward into the world of Impressionism. Only Zola was left, in 1879, to proclaim defiantly, **"La Republique sera naturaliste ou elle ne sera pas"** ("The Republic will be realist or it will not exist"). But that class of Frenchman who might have listened to Zola, or who would have patronized Courbet, was by this time out

to lunch—a three-hour-long lunch! In **haute cuisine,** the feasts grew longer, the sauces thicker, the cream more clotted. And in the afternoons, the patron was likely as not to be ravished by the newer triumphs of the Impressionists: beautiful women, brilliant sunshine, light surfaces—what a fine change from sober Courbet!

The **nouvelle cuisine** is a creature of the 1970s. Therefore, it is perhaps not accidental that it came into its own after the personal empire of Charles de Gaulle was succeeded by the unrepublican republic of Pompidou and Giscard d'Estaing in the 1970s. Having surmounted the threat from the Left—Mitterand—the new men of affairs turned again to the dining tables, where a new generation of chefs awaited them.

The modern captains of comfortable France had already discovered that it was grossly impractical to entertain each other over the traditional three-hour-long midday meals; in any event, the new restaurateurs could not produce the support systems for the old cuisine—it was simply too costly to provide armadas of **sous-chefs,** kitchen aides, busboys, et al. At home, trained servants were unavailable and kitchens became smaller. Consequently, the **nouvelle cuisine,** with its tolerance for the quickly prepared, the machine-processed, the sliced kiwi, and the easily digestible sorbet, met several social needs at once. The senses could be delighted, the palate surprised, and **"le grand standing"** maintained— all without hours of simmering and the grief of dyspepsia. An added bonus was the ease with which the new style could be adapted for the home, from which many Frenchwomen had been liberated in the course of the new prosperity. Thus, labor was spared, women were freed for employment, and business could be conducted in the afternoon—all thanks to one of those minor art forms at which the French still excel!

I am afraid that it will take a social historian far more perceptive than I to trace the story of the new cuisine to other countries, the social soil of which has permitted these Gallic seeds to take root. Can one relate, for example, the explosion of American interest in gastronomy, especially in that of the **nouvelle cuisine,** to the dissolution of our domestically liberal empire, which reached its limits under Lyndon Johnson? Does the American passion for the natural, the slender, the fit permit us to establish the **nouvelle cuisine** as the house diet of the new narcissism?

These ruminations have led us quite afield from worries over the fat content of our diet and its relation to disease. Generations of Frenchmen have doubled over with their **crises de foie,** thanks to the excesses of the **ancienne cuisine,** and countless Americans have been felled by the gobs of fat in their steak (or so the Heart Association tells us). The **nouvelle cuisine,** created for whatever combination of social or aesthetic reasons, promises to ameliorate the diseases of Franco-American gluttony while it pleases both palate and eye. But I'm still worried about all those kiwis—can they really be good for you?

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Tenuate Dospan®
(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary
INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.
CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).
WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.
PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.
ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema, *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.
DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.
OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to:
MERRELL-NATIONAL LABORATORIES
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Cincinnati, Ohio 45215, U.S.A.

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References: 1. Citations available on request from Medical Research Department, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon [Dillon], R.H., and Leyland, H.M.: A comprehensive review of diethylpropion hydrochloride. In, Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York, Raven Press, 1978, pp. 391-404.

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9-4672 (Y957A)

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For prescribing information see opposite page.

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Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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THE DO-NOTHING APPROACH TO MEDICAL CARE. . . .

William H. Taylor, Jr., M.D.*

It is not unusual for a patient, on his first visit to a new physician, to bring with him a paper bag full of medicines. Some of these drugs have been efficient, but many have served no purpose other than taking up space in a bag or in a medicine cabinet.

This plethora of medicine makes the physician wonder just how many of these drugs are masking the patient's symptoms; how many are relieving the symptoms; how many are actually curing the symptoms; and how many are actually aggravating or causing the symptoms.

He asks himself further just how many of these drugs are necessary, and then he takes the inevitable last step and asks himself: "Would some patients actually improve to a greater degree if they were given no medication whatsoever?"

Patterson mentions that prior to the introduction of sulfonamides in 1930, drug reactions were estimated to occur in 0.5 to 1.5% of patients. In his book, **Allergic Diseases,** 1972 edition, he states that "Up to 5% of all patients admitted to hospitals were suffering from drug reactions and 30% of these patients developed a second reaction while hospitalized."[1]

I did not write this paper primarily to discuss drug allergies. My purpose is to define a "do-nothing cure" that is obtained without the use of pharmaceutical drugs or compounds. Further, I shall illustrate the benefits of this program by reviewing several cases. The do-nothing cure is achieved chiefly by altering a patient's environment, be it either by changing his dietary consumption of a certain food, by removing a gas stove, or by avoiding exposure to a cosmetic or other chemical irritant. This list is not conclusive and is used only as illustration.

The first case is that of a middle-aged white female with gross edema of the left side of her face. This patient had developed this illness after taking pronestyl 8 weeks prior to coming to see me. There had been mild improvement with the use of steroids, but a complete remission was not obtained until I had placed this patient on a rice and apple juice diet for seven days.[2]

This is the diet that Doctor Walter Kempner had instituted at Duke University in 1939, for the treatment of chronic glomerulonephritis. Immunologists recognize that a substance must have a molecular weight greater than 10,000 to be antigenic.[3] I surmised that since this patient improved on the diet, the pronestyl, being of a small molecular weight, must have combined with proteins that were absorbed whole, thereby forming a haptene.[4] This combined drug and protein then attacked the target organ, which was the face of this patient, and the resulting deleterious effect occurred.

Apple juice contains only a trace of protein, and a cup of rice contains only four grams of protein. By boiling the rice, some of the protein is broken down to polypeptides, thus making the digestion of the protein substance in the rice more easily absorbed as amino acid. Therefore, by using this diet, one of the pathways for a drug antigenicity taking place is eliminated.

CASE NO. 2

Shortly after the non-drug approach was used on the first case, it was tried again. On this occasion a white, middle-aged female was seen with a maculopapular rash that developed while she was being treated with butazolidin. Although she had been off the drug for six months, the rash still persisted. She cleared completely in one week after being on the diet of rice and apple juice.

An eleven-year-old white male with typical symptoms of Meniere's disease was treated in October, 1975. This child was allergic to seafoods, peanuts, and chocolate. He entered the hospital with a hearing loss, tinnitus and vertigo. Forty-eight hours after admission, all medications were discontinued and he was started on the rice and apple juice diet. Two days later he was discharged with complete return of hearing and absence of vertigo and tinnitus.

Needless to say, I have used this diet on a multitude of other suspected allergic problems. Some obtained beneficial results; others did not.

Doctor Eugene Stead states that he had better results with hypertensive patients at the Duke University Medical Center through dietary management[5] rather than with medications. Perhaps the elimination of the absorption of whole food proteins may have produced some of the beneficial results. Although this diet is low in sodium, the results produced may have been only partially due to the lowering of this content.

*Otolaryngology and Allergy, 1025 South 18th Street, Birmingham, Alabama 35205, Telephone 205/933-9544.



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After publishing a paper concerning the previous results, a summary of this article appeared in one of the weekly tabloids distributed throughout the country. A mother from a city in the Midwest read of the results and called me. She informed me that her fourteen-year-old daughter's whole mental attitude had changed over the previous year. Her child's grades had deteriorated from a "B" average to failing marks.

Over a period of one and one-half years, her calm demeanor had changed to that of a hyperactive child who got extremely "high" on antihistamines and was extremely tired and listless at other times. The mother stated that her daughter had developed a list of symptoms one and one-half pages long. The child was under a physician's care at the time and since I could see no reason for not starting the diet, she was begun on it. I later received a six-page letter from the mother thanking me for her child's improvement. She stated that her daughter's physical symptoms had begun to disappear after four days on the rice and apple juice diet, and after seven days her mood changes had completely disappeared. Her achievement in school also improved; she again maintained a "B" average. After the symptom improvement occurred, the child was started on a challenge diet of one new food per day, preferably of a low-protein variety in the beginning. The mother stated that when the child was fed potatoes and onions, she would lapse into her former deleterious mental state. The child had been on many different types of medicines and under the care of numerous physicians prior to this dramatic finding that the child had had a cerebral allergic reaction to potatoes and onions.

I would like to digress for a time to mention some of the other physicians who have performed work to substantiate the above findings of this child's mother.

Doctor William H. Philpott, Psychiatrist and Assistant Medical Director of Fuller Memorial Sanitarium, South Attleboro, Massachusetts, writes in the **Journal of Clinical Ecology** about a study of 125 hospitalized psychiatric patients.[6] His manner of testing was to withhold food and to place the patients on nothing but spring water for four days. Doctor Philpott states:

"Many of the mental symptoms the patients experienced subsided or even disappeared in a high percentage by the fourth day."[7] The patients were then provoked by the testing foods. Symptoms produced were insomnia, depression, inattention, fatigue, anxiety, phobia, paranoia, hallucination, delusions, and catatonia. The patients were fed only one new food per day and were carefully observed for changes in personality while eating the food and also were observed during the 24 hours after the food was ingested.

The highest percentage of reactions was to the cereal grains. Wheat produced symptoms in 64% of the patients and corn in 51% of the patients. Interestingly enough, in addition to the other findings Doctor Philpott reports, is the case of one diabetic patient who was taken off insulin after it was found that cereal grains provoked an elevated blood sugar. Another patient with four previous hospitalizations for tachycardia was provoked with certain foods and remained symptom-free after these were isolated and discontinued. Three cases of colitis were cleared and two of these were related to chlorine in the water. Doctor Philpott states:

"Tranquilizers were withdrawn for the sake of an improved examination of the patient and it was found that the majority of the time, symptoms were well controlled by the allergic management and also molecular treatment of the patient, that tranquilizers need not be reinstituted most of the time."[8]

Saul D. Klotz reports similar findings in a study performed with 250 students of the Green Valley School of Orange City, Florida.[9] This school received adolescents from all parts of the country with diagnoses ranging from character disorders to psychoses and traumatic brain injuries. By identifying antigenic exposure in their air or foods, and by eliminating or treating with desensitization therapy, the average child's confinement to the school was reduced from 36 months to 9 months.

WHEN DRUGS FAIL

Over the past five years I have used the dietary elimination approach on a number of patients with suspected allergic problems. The majority of these problems were headaches, vertigo, allergic rhinitis and sinusitis, chronic cough, pharyngitis, and recurrent mouth ulcers. I have received satisfying results numerous times when drug therapy had failed.

One recent case of interest was a six-year-old black male child with a chronic cough of six month's duration and with serous otitis media present bilaterally. After the child had been placed on the rice and apple juice diet, his cough subsided on the fourth day, and the serous otitis media had begun to resolve.

For those suspected allergic patients who do not improve on the rice and apple juice diet, a further step is usually taken. These patients are admitted to a hospital unit, isolated, and fed nothing but distilled water for four days. Doctor Theron Randolph describes how a typical isolation unit should be set up in **Hospital Practice** (March 46, April, 1964).[10] I have not, however, gone into as much detail in my isolation as Doctor Randolph. The room used is a private room. The door is kept closed at all times. No cleaning of the room with any chemicals is performed while the patient is occupying the area. All cosmetics, flowers, plants, and tobacco are removed. The patients use baking soda for a deodorant and for tooth brushing. Visitors are limited for the first three days, and only members of the family are allowed thereafter. The nurses are requested **not** to use perfume. Food, when prepared, is cooked separately from that of other patients. All foods should be cooked in glass or stainless steel in distilled water.



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***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.
Final classification of the less-than-effective indications requires further investigation.
The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported; most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

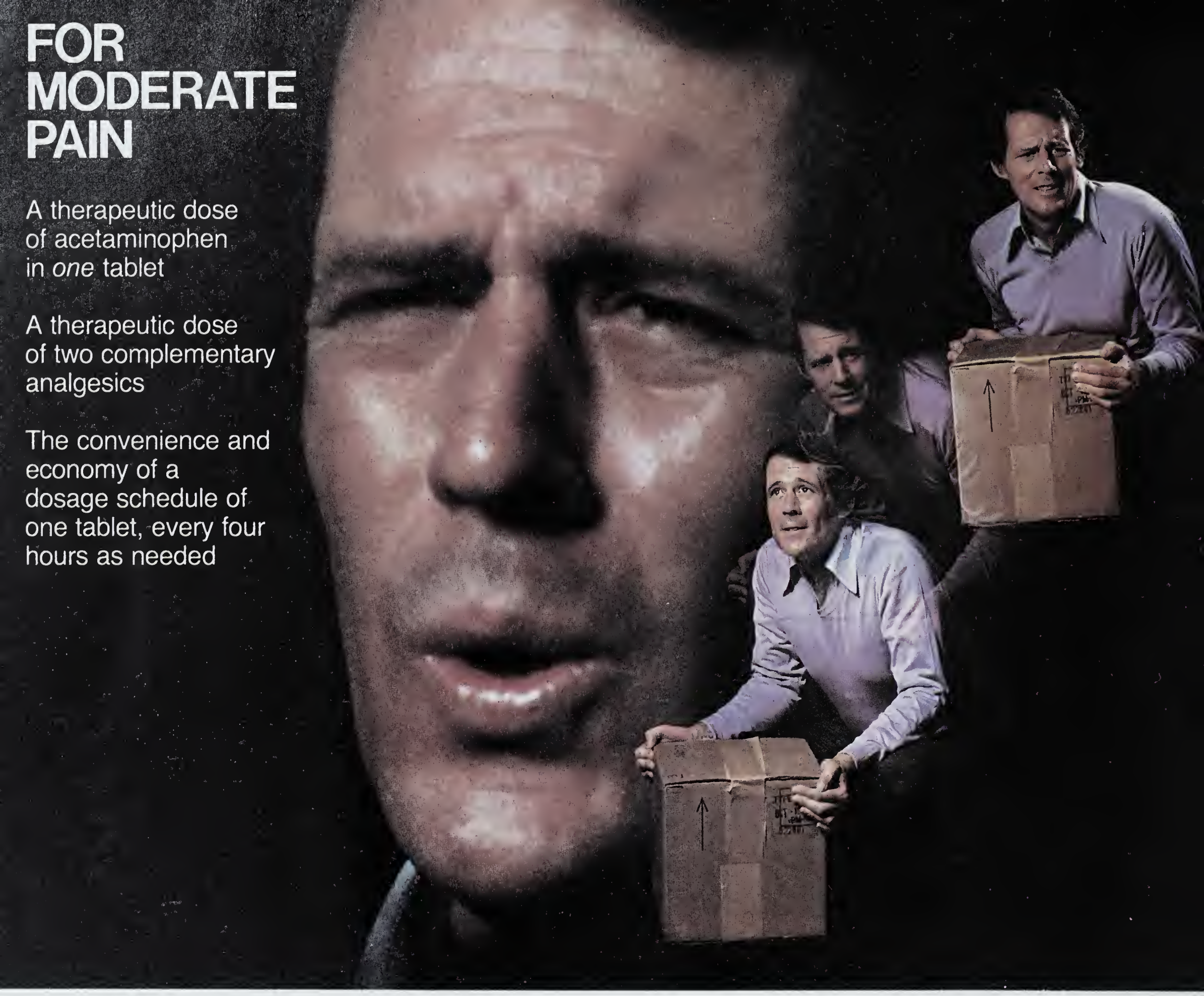
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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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The logic behind this isolation is to rid the environment of as many potential antigens or toxic materials as possible. Sometimes withdrawal symptoms, i.e., muscle cramping, may appear after the first 24 hours and up to 48 hours. Many of these can be relieved by inhaling a mixture of CO_2 and oxygen. The majority of the patients feel better by the beginning of the fourth day. It is not unusual for some to say, "I have never felt better in all my life." "My head feels clearer than it has in years." "The sluggishness and drowsy feelings I've had have disappeared."

If the patient is feeling better at the beginning of the fourth day, I usually feed them one food that day, perhaps rice in the beginning. The following day, new foods are selected from a low-protein diet, and the patient is fed only that one new food for the day. Any symptoms provoked during the 24-hour-period are recorded, and if suspicious enough, that food is eliminated from the patient's diet.

If the symptoms are not of a severe nature, e.g. provoking an asthmatic attack or headache, then the food can be returned to his diet after two months, but then only on a trial basis. All foods that the patient can tolerate are rotated on a 72-hour basis. For example, if a patient eats canned peaches and does not have any problems with them on Monday, he can repeat eating the canned peaches on Friday.

The patient usually does not remain in the hospital longer than one week to ten days. During this time he becomes aware of and educated in the attempts being made to produce a cure of his disorders. On discharge from the hospital, he is still in a very sensitive state and should be able to spot offending odors or areas of his home in which he is uncomfortable. If cosmetics are the offending agent, these can be removed. Occasionally the gas from a stove or heating unit may be the factor causing a headache or dizzy spell. These may have to be removed or vented in such a manner that symptoms are no longer provoked.

I have used this isolation technique for the past six months on approximately 25 patients. The majority were patients with severe and constant headaches. All had been seeking help for at least a year, and most of them had had headache work-up, including skull x-rays and a brain scan. Ninety percent of these patients' headaches cleared on the fourth day, and the offending food or agent was identified. Most often it was something the patient frequently used, e.g. either tea or coffee.

One young male cleared after two days, and his headache returned when his father entered the room. His father was wearing an after-shave lotion of the same type the patient had been using continually. Another patient had been on a hypoglycemic diet for vertigo and was able to resume regular diet when the offending food producing her vertigo was identified and removed. A 65-year-old male with a history of asthma almost continually for 16 years cleared on the fourth day of fasting and was removed from steroids. He had no further recurrence of asthma until he ate pecans. This cleared again with fasting and a short course of steroids.

A RAST Test is also drawn on all isolated patients. This test measures specific IgE to various antigenic substances whether they be ragweed, tree or grass pollens; molds, house dust, animal danders, e.g. cat or dog hair, and food. Some foods may have an IgG-mediated, rather than IgE-mediated, allergic response, and this difference is one of the weaknesses of this test. IgG-mediated responses may be picked up in many cases by a provocative injection of the food subcutaneously. If the patient shows an elevated specific IgE by the RAST Test to these substances, avoidance is advocated. If avoidance is impossible, then desensitization by the use of sublingual drops is begun.

The majority of patients suffering with ecological illnesses—those produced by environmental causes—can be handled by following the above mentioned procedures. I use the word "ecological" because many of these illnesses can be cured without the use of drugs. The list of ecological or environmental illnesses is growing as immunologists and allergists gather more information.

THE NON-DRUG CURE

The list of ecologically or environmentally induced illnesses may encompass most of the different areas of the body. I have called this paper "the do-nothing approach" as I have suggested methods for affording a cure other than through the use of drugs. The use of drugs can be more expensive and more hazardous.

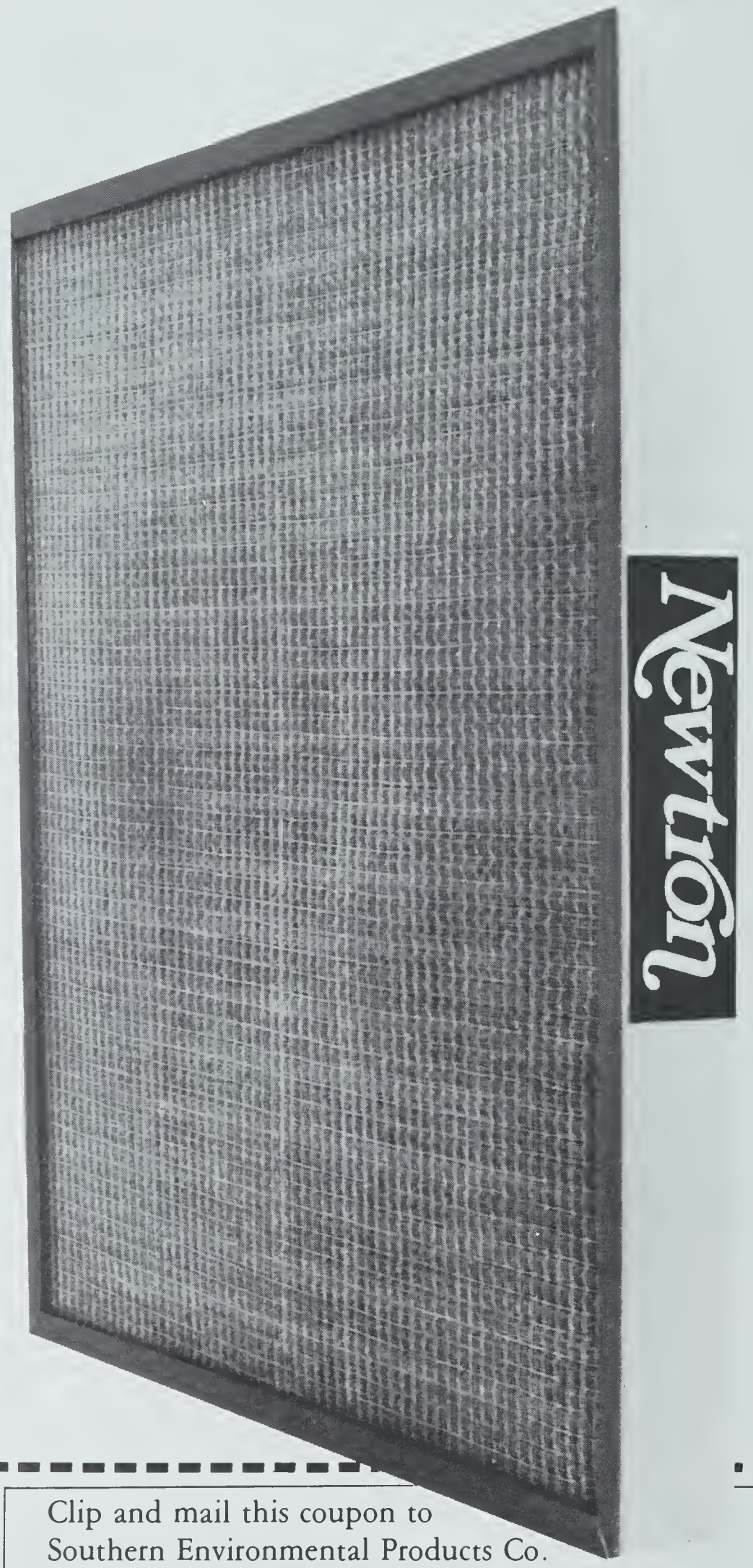
I have tried to show that often reorienting the suspected ecologically ill patient's diet to a diet in which whole protein may not be absorbed will often be beneficial. If the low-protein diet fails, it may be necessary to isolate in the hospital for a short period of time to reduce other environmental exposures as much as possible. This treatment has been beneficial in the majority of patients subjected to this isolation.

I have mentioned numerous symptoms and illnesses which other authors have reported and which have been relieved by removing the ecological offending substances. The use of drugs certainly has its place in the care and cure of many patients and many illnesses. I have tried to show, however, that if other means fail, a simple method of eliminating certain offending substances to the patient can be helpful. Dickey in **Clinical Ecology** states:

"Modern medical education and training, especially internal medicine, have made the young physician feel that he is obligated to treat every patient with some sort of medicine. In contrast, the ecologically oriented physician, who in general is in the latter half of his medical career with a varied medical and surgical background, views any symptomatic medication as a potential hazard."[16]

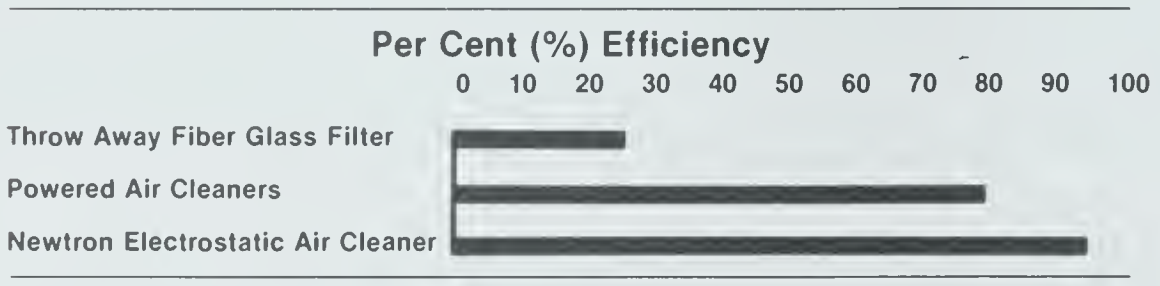
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Camp Seale Harris For Diabetic Children

By Samuel Eichold, M.D.*

Would you believe that the temperature at the end of July and in early August could be so mild and the breeze so cool that during the day one is more than just comfortable? This was true at Winnatoska and despite the rugged activities of camp life.

Enhancing the pleasures of attending Camp Seale Harris, which is located in the hills outside of Pell City, Alabama, are magnificent woodlands that surround a beautiful creek. It is this Kelly's Creek that meanders through the campgrounds and flows over a gigantic rock spillway. It adds a cacophony of sounds, which seem to vary with the ever changing lights of day and night.

With that full moon, visible at the end of July, it was a splendorous sight to view from the bridge, which traverses the falls. The spray hangs like a spider's web beneath the falls.

This camp site is a mature development which was spawned many years ago and benefits from many additions since the inception of Camp Winnatoska. At the church oriented camp there are a variety of buildings which beautifully lend themselves to the needs of highly specialized operation, such as our diabetic camp. Camp Seale Harris is operated by the Alabama Affiliate of the American Diabetes Association.

An intensive search for a substitute camp site, after Camp Seale Harris was forced to leave Scoutshirewoods near Mobile, resulted in the fortuitous availability of the facility which has been enjoyed for four seasons. The 1980 session of Camp Seale Harris was an overwhelming success.

There was a primary goal for this special camp, that began in Mobile some 33 years ago. It was a dedication to meet the several special needs of the juvenile diabetic. At this session there were some 96 youngsters with diabetes being served in that unique manner which was envisioned at the inception of this first camp east of the Mississippi and south of the Mason Dixon.

One unique aspect of this camp that is different from the other summer camps, is that the campers are afforded more than healthful recreation. Our diabetic campers are often youngsters without prior opportunity to enjoy the great out-of-doors. Parents frequently fear for the hazards of acquatic endeavors. Many of our campers have not learned to swim. The number of those who have never been in a boat or a canoe far exceeds the numbers in the same age group of non-diabetics. Yes, all the prescribed pleasures of summer camping are included in the schedule of Camp Seale Harris.

*Professor, University of South Alabama College of Medicine.

All the participants of our camping program are under a mandate to receive a daily injection of insulin, a calculated intake of food as well as urine and blood tests to sustain full chemical control. There is a similarity of the frustrations of life that are felt amongst all the campers.

A second goal for Camp Seale Harris is to seek such a means of effacing the restrictions or for overcoming limitations of a diabetic child. By gathering diabetic children in camp it is possible for them to play together in a broad-range program. Added to healthful recreation are the beneficial effects of togetherness. These psychological considerations for the benefit of young diabetics compounds an operation of what might be described as a technically difficult operation.

A third addition to the concept of our program is intensive educational activity. This is created around the concept of developing for the diabetic child a sense of independence and self-sufficiency. The acquisition of knowledge is mandatory for a diabetic child to live a full life that may extend over a period of four score and ten years. Such education may make possible a life without the frequently encountered complications and the ravages of uncontrolled diabetics.

There is an abundance of evidence to support the medical advocacy of "full chemical control" for the individual with diabetes. This can only be accomplished with the regularly and properly prescribed, measured and administered insulin. There is often the necessity for one or more daily injections of insulin. There is additional knowledge to be gained about foods that are appropriate for each individual. Food is a never-ending activity of life for all God's creatures.

With so many fads and fancies, it is not always easy to sustain one's diet without ingesting some inappropriate foods of one kind or another. It may be error in quantities that are excessive or even too limited for good health. So many individuals, young and old, are without the knowledge of their individual food requirements. The effort is made to educate the campers to their one-of-a-kind nutritional needs.

Probably one of the most challenging problems that is confronted in this special kind of camp, is achieving full chemical control of the diabetes in less than two weeks. Rarely does a camper arrive in a state of balanced diet, insulin, and exercise that will afford urine that is free of sugar and a blood sugar that is somewhere in the range of normal, for most of the 24 hours in any day.

There is a sense of responsibility to the referring physicians who have sent their juvenile diabetic patient to Camp Seale Harris. In one effort to recognize the

referring doctor's loyalty and support of this experience for their patient, a carefully prepared report was tendered at the end of camp. The results from the many tests that are run on each camper have been carefully recorded during camp. This is the basis on which all determinations for changes in diet or insulin are made. From these reports it is felt that the referring doctor will find justification for any changes that were made.

The record will enhance the referring physician's ability to make judgment of what was done for their patient and will serve as a point of reference for future evaluations that are so important in the ongoing care required for the management of a diabetic.

The efforts to achieve full chemical control are greatly encumbered in some of the adolescent children with many variables in hormonal balance. The reports which accompanied the camper on the day of departure, were a composite of four urine sugar and acetone tests each day. For some campers, as many as twenty plasma glucose determinations were made during their stay at Camp Seale Harris. Blood glucose determinations were made by the means of a finger stick (capillary plasma glucose) rather than the usual venipuncture for the withdrawal of blood for the glucose determination. In the past, comments from the referring physicians have lent strong support to the program. It is totally dedicated towards education, diabetic management and recreation.

As a spinoff benefit, aside from those afforded to the diabetic child, is the teaching opportunity for a camp of this type of Seale Harris affords to members of the medical profession and the paramedical populace. Medical technicians are required to make the chemical tests of the blood which describe the control of the diabetes.

Nowhere else can medical technologists and those who are in the Schools of Medical Technology be afforded exposure to the opportunity of living with their patients. Here they can correlate determinations they make on blood with the well-being of the individuals with whom they live and who are being tested and treated. For dieticians, the duty is to afford an individual what is thought to be required for optimal nutrition. A random visit by a diabetic, to a dietician, may not afford them the opportunity of meeting all the prescribed needs of nutrition. Much less does it introduce all the problems of providing for the special likes and dislikes of an individual requiring a calculated intake of food.

At Camp Seale Harris, dieticians can be involved with the three meals a day for a period of time, long enough to afford the camper with a diet prescription that is beneficial in quantity, quality and variety of foods. Students from the School of Dietetics at the University of Alabama in Tuscaloosa work with their own teachers to learn more about meeting these finely developed and individually calculated dietary requirements, for each camper. No less valuable is the exposure of nursing students with their teachers, to live in intimate contact with their camper patients in the controlled environment of diet, insulin and exercise. To daily participate in camp activities and observe the effects of a variety of exercises, is a genuine learning experience that is to be long remembered by the students in nursing school who participate in Camp Seale Harris.

The regime for insulin and diet is prescribed by each camper's attending physician. No insulin adjustments are made unless strong indications are present after several days of observation at Camp. The frequency of uncontrolled diabetes, which is such a hazard for a long and uncomplicated life, makes it necessary for some alterations in insulin to be prescribed by the physicians living in camp and with the children. It is not a single opinion which alters the course of treatment but a composite of the recommendations from the three or four physicians in Camp who review plasma glucose determinations, urine sugar, urine acetone and episodes of hypoglycemia.

The operation of Camp Seale Harris is a function of the Alabama Affiliate of the American Diabetes Association. This is not only a professional but a lay organization. It is composed of those physicians who have a real interest in the care and the education of diabetics. From private practice, the faculty of the University of South Alabama College of Medicine, are gained the MDs who live at camp and attend the medical requirements of the diabetic campers.

To attend camp as a medical student has become a sought-after learning experience for medical students in Alabama and neighboring states. The word is passed down from one undergraduate medical student to another of the benefits to be gained by performing medical chores that extend way into the night. There is that learning opportunity of knowing how to determine insulin needs as measured against a battery of laboratory data. This can be found in few arenas of medical teaching.

Only a very limited number of students in medicine and the paramedical field teaching can be accommodated.

Camps have been popularized because the benefits from the special features at CSH have been demonstrated to have measurable effects on the present well-being and the future good life for juvenile diabetics. These are very expensive operations due to the highly specialized aspect of living in a carefully controlled environment and with so many care-providing personnel. Hospitals and homes are not a comparable site for accumulating the information which a physician needs in the effort to gain full chemical control.

Though expenses are great it is reasonable to assume that a cost-effective benefit occurs from the operation of a camp for juvenile diabetics. Support from individuals and corporations have made it possible for, "No child to be denied the privilege of attending Camp Seale Harris, due to inability to pay".

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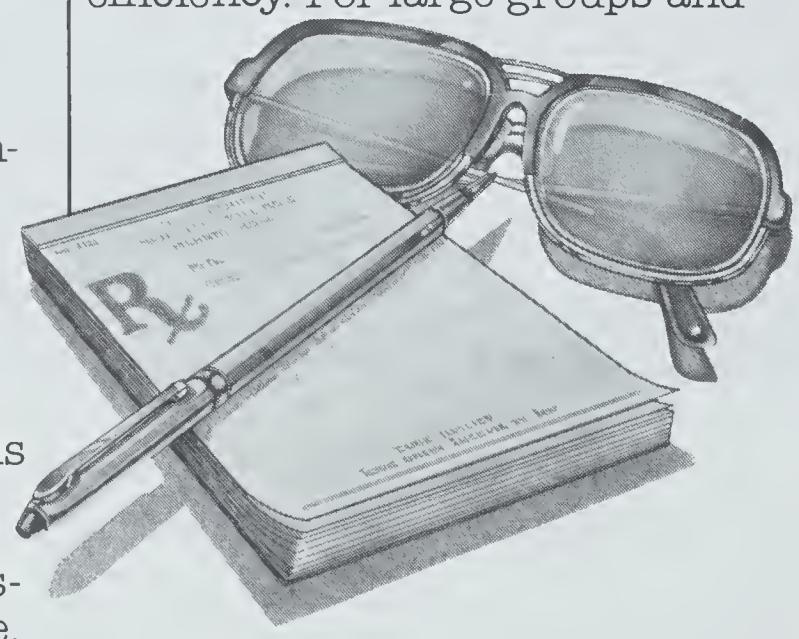
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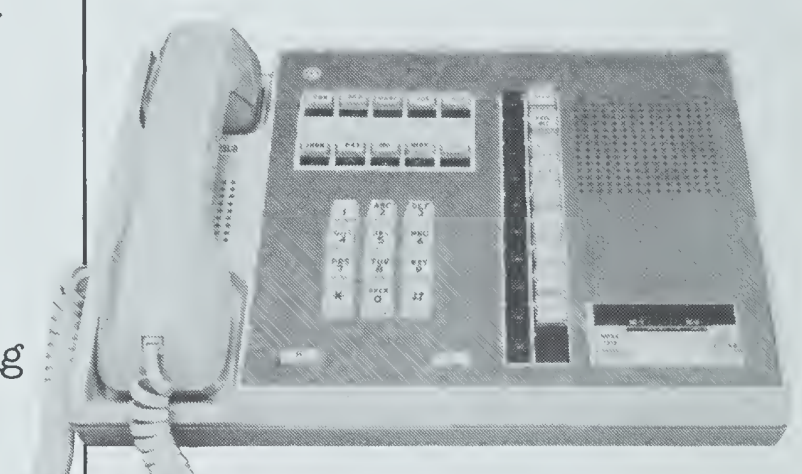
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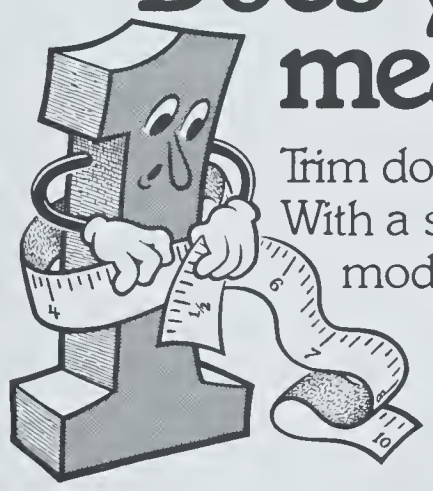
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1 Does your figure measure up?



Trim down your excess weight. With a sensible diet. And regular, moderate exercise.

2 What's for breakfast?



It's the most important meal of the day. Don't miss it.

3 Do you work on balanced meals?



Your body needs three squares a day, balanced from the four food groups.

4 Where do you draw the line?



If you drink, stop. Or at least cut back. Studies show that people who don't drink or drink only in moderation live longer.

5 Have you kicked the habit yet?



Smoking greatly increases your chances of cancer, heart disease and emphysema. Stop while you're ahead.

6 Are you skipping exercise?



Don't. Moderate exercise about three times a week can make you feel better.

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President, A–MASA

ALABAMA HEALTH EDUCATION

School has begun and summer is now a short, pleasant memory.

Auxiliary members across the state, from Colbert County to Mobile County, are turning the key and unlocking the door to a successful auxiliary year for 1980-1981, thus continuing to contribute to quality health care for the betterment of each community in Alabama.

One of the benefits of belonging to a national and state organization is the excellent leadership training offered to its members. The Fall Board Meeting and Leadership Workshop held at the Plaza Hotel South in Birmingham, September 23-24 was no exception.

Mrs. Jack Strong of Birmingham served as Hostess Chairman for the Jefferson Birmingham Auxiliary. Reports and plans of State Officers, State Committee Chairmen, and County Presidents were a vital and stimulating part of the auxiliary board meeting.

Most interesting was a special AMA Auxiliary Convention Report given by Mrs. Rufus Lee, President-elect.

Mrs. Ben Johnson, Jr. graciously thanked the auxiliary for the handmade needle-point rug presented to her as she completed her year's term as president of the American Medical Association Auxiliary.

County Presidents, County AMA-ERF Chairmen and auxiliary members were invited to a special time of sharing at a wine and cheese party in honor of Mrs. T. H. Fields, Monroe, La., AMA Auxiliary Southern Region AMA-ERF Chairman. Mrs. Robert Finchum, AMA-ERF Chairman for Alabama served as Auxiliary hostess.

Tuesday evening the workshop began with a special dinner speaker. Dr. Larry Gibbons, Director of the Cooper Clinic, Dallas, Texas, presented a one-hour lecture entitled "Exercise, The Juice Is Worth The Squeeze" followed by a film made by Mrs. Ken Cooper encouraging exercise programs for women.

Mrs. George Scofield of Birmingham, AMA Auxiliaries Health Projects Chairman, shared the nationwide "Shape Up For Life" campaign. Special emphasis for the 1980-1981 year is physical fitness. Mrs. Richard McElvein, A-MASA's Health Projects chairman introduced our guest, Dr. Gibbons.

Dr. Jack Hawkins, President, Alabama Institute for the Deaf and Blind, was the auxiliary's breakfast guest speaker. After a most informative talk and discussion, auxilians enjoyed a slide presentation recently made of the school by the University of Alabama. Presented were the historic campus, the many services offered at the school for the blind and deaf handicapped, plus the full range of student activities from wrestling to football.

Alabamians should be very proud of this fine school, one of the best in the nation. Due to underfunding in the past, this is the first year the school has been able to operate without a deficit. Since Dr. Hawkins became president in January, he has made many positive changes at the School and much progress has been made. Especially requested was the auxiliaries help in providing funds for a television de-coder for deaf children to use as a teaching aid.

Mrs. Robert Finchum introduced Mrs. Thomas Fields, AMA-ERF Southern Region Chairman. Mrs. Fields welcomed auxiliary members to a new AMA-ERF Project Year and reminded auxilians that "The Winning Team" for AMA-ERF is composed of each auxiliary member on the county level, our physician spouses, and our state and national committees.

Working together, we fund the only national philanthropic fund-raising effort of the American Medical Association Auxiliary.

"What is unsettling," Mrs. Fields stated, "is the fact that while costs for tuition are rising, the available financial assistance for medical students is not only diminishing, but is also becoming restricted. This has happened with our own Loan Guarantee Fund and also with the Federal Loan Programs. Our help is needed now, more than ever, both for our medical schools and for the Loan Guarantee Fund. It's up to us to meet this challenge."

Other workshop participants included Ms. Linda Larson, Director of Public Education Division for the American Cancer Society, Mrs. Robert Estock, First Vice President in charge of membership, and Mrs. Rufus Lee, President-elect.

These are only a few of the many stimulating ideas, programs and activities shared by auxilians during our Fall Meeting. Each officer, chairmen and member will make an ordinary year become a long remembered treasure of community health-related programs and activities for your county. I'm sure of it!

Mary

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For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.



Just one tablet b.i.d. for 10 to 14 days

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Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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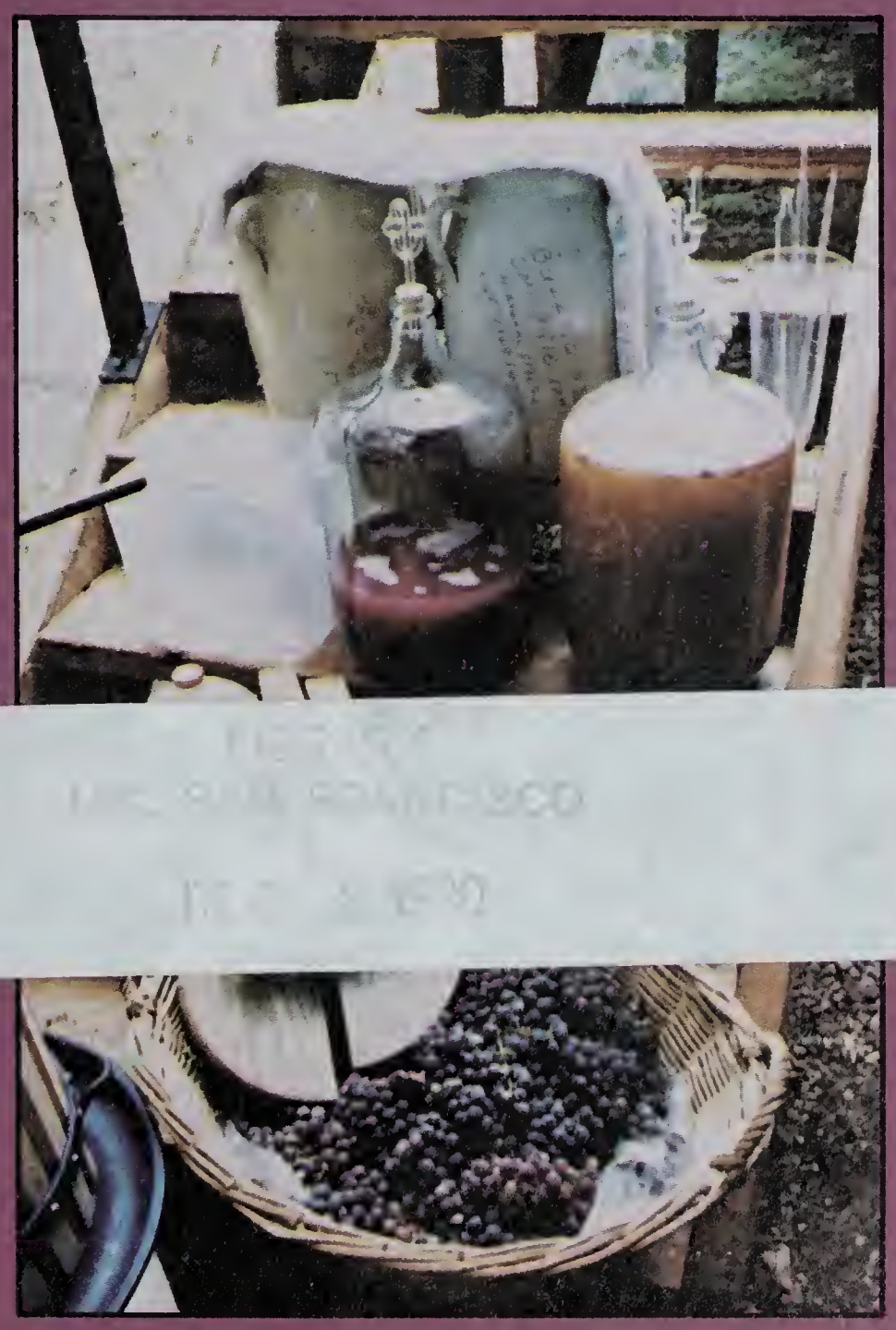
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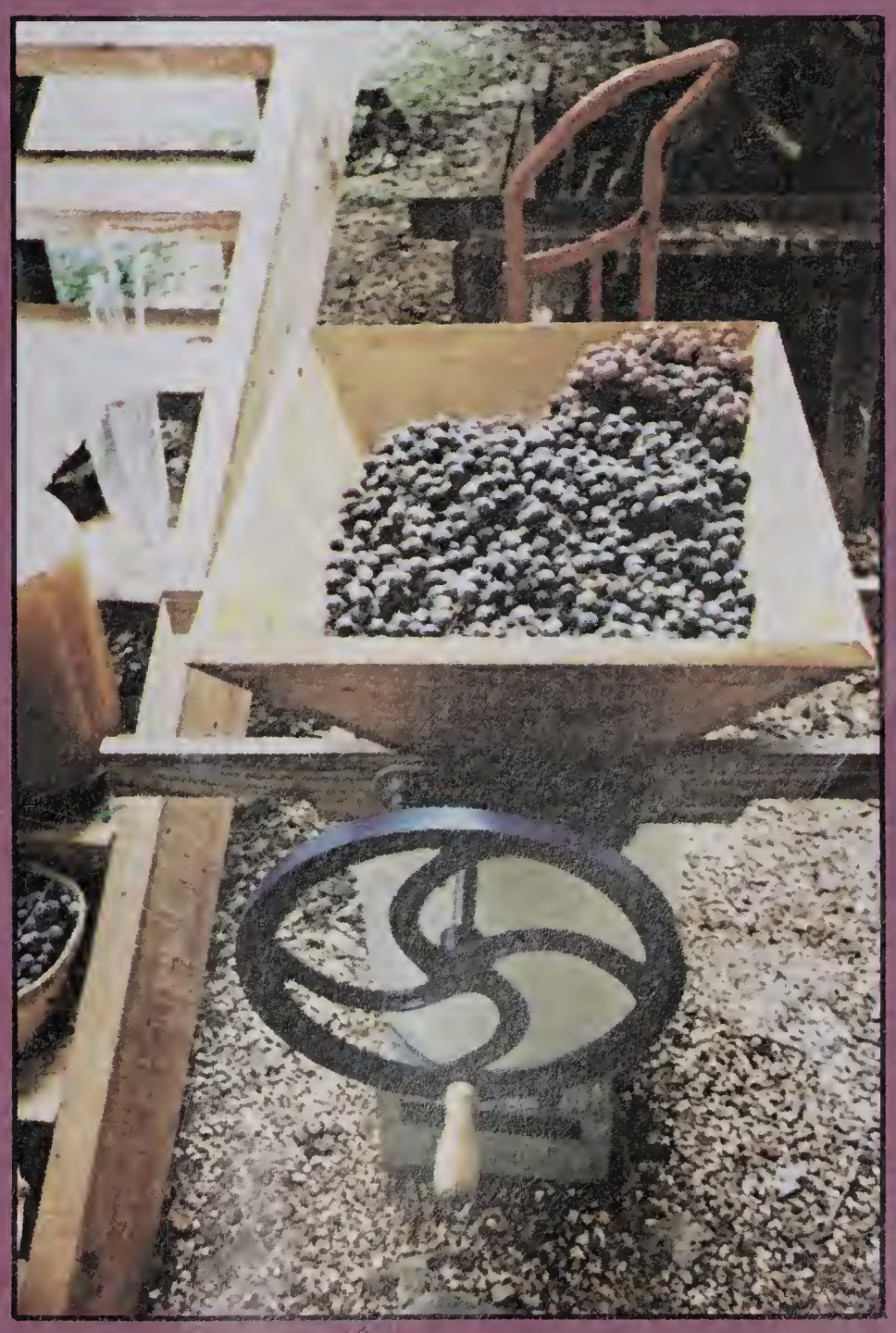
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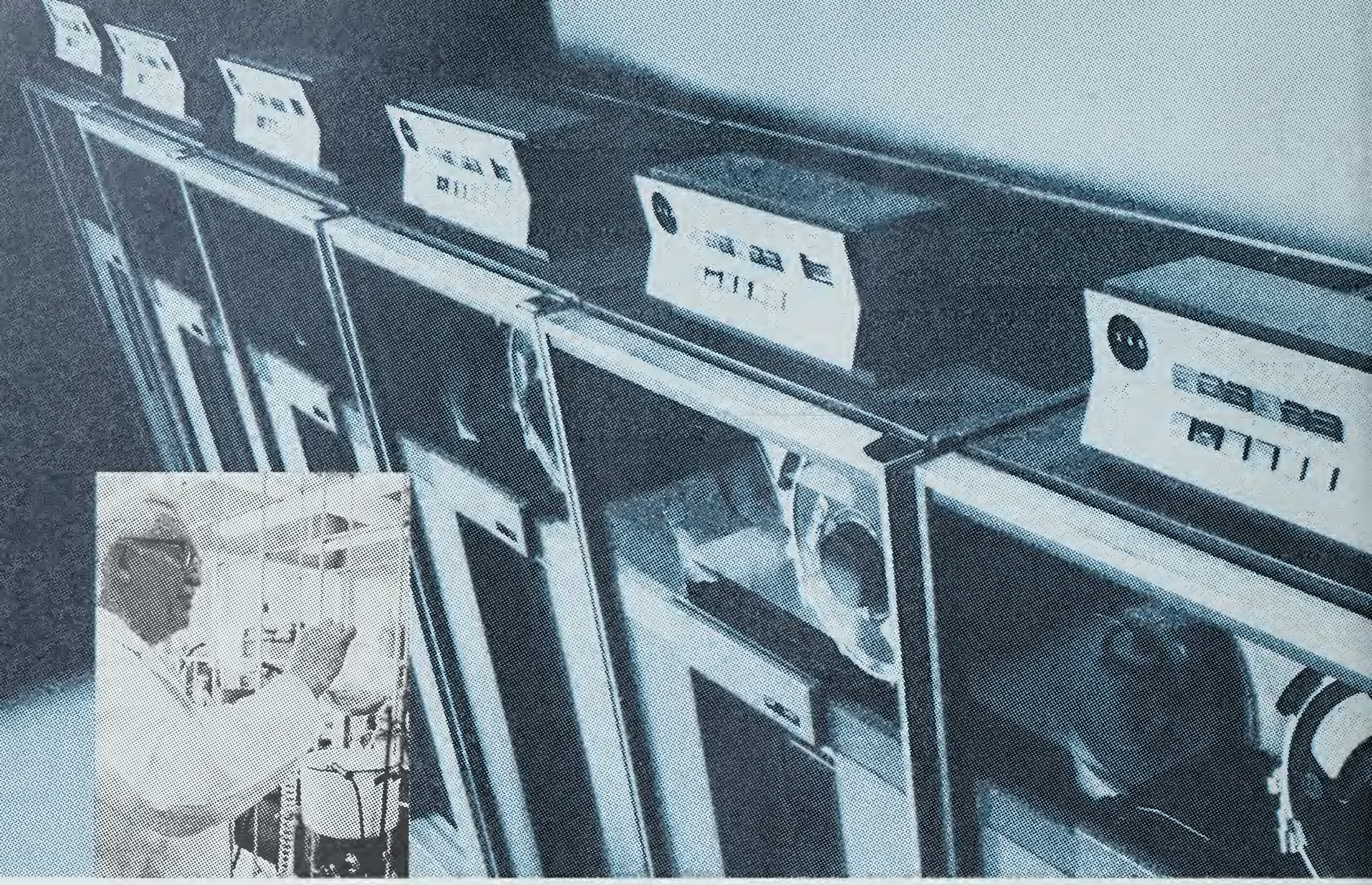


John Rice
Vine Tree Farm
Boca
October 1980

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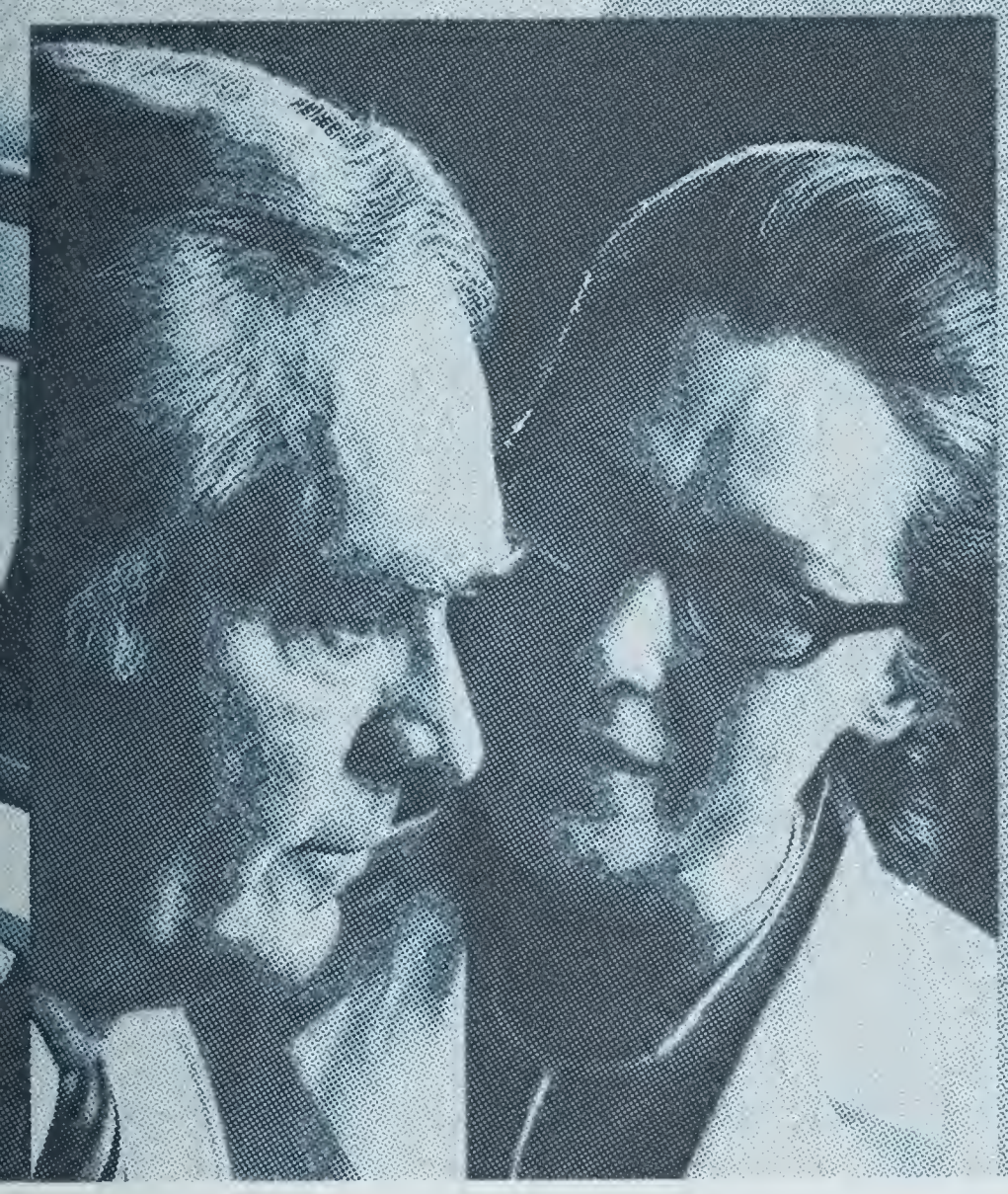




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Please see next page for summary of product information.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral–Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

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About The Cover

The harvest cornucopia on the cover depicts, in various elements of the montage, the wine-making of John B. McFerrin Rice, Jr., M.D., of Florence. The former MASA President suffered a terrible fall two years ago and resolved during his convalescence to do what he wanted to do for years but never found time for—take up grape-growing and wine-making in a scientific manner. He has done that. Story, page 19.

From the Executive Director

THE NEW MALTHUSIANS

We already have about all the health care acronyms we can say grace over, but I suspect we are going to get mighty familiar with a relatively new one pronounced "Jimmy Nack."

It derives from GMENAC, which was begotten by the full name of the Graduate Medical Education National Advisory Committee, a mouthful.

By now everyone is familiar with the most notable of its conclusions, that an "inexorable surplus" of 70,000 doctors will descend on the United States by 1990.

This had been forecast in calculated leaks for some time. It all began when Former HEW Secretary Califano suddenly stopped deploring the physician shortage a couple of years ago and began lamenting the "medical glut". Feast and famine come in fairly rapid succession these days, it appears.

The GMENAC people based their forecast on a lot of projections using a sophisticated mathematical model that is supposed to be the ultimate projection. We have been assured that the statisticians who put their heads together on this one are some of the finest in the land.

I have no real evidence that these new Malthusians of Medicine are wrong in their predictions that there isn't enough health care to go around and that 70,000 doctors will be more or less consigned to the slag heap, like the current surplus in PhDs.

This kind of forecasting is pretty dicey business, however, as AMA Vice President-James H. Sammons said in a diplomatically worded response to the Sept. 30 GMENAC report. He said history has shown that long-term medical manpower projections are extremely difficult to make, given all the complex factors presently known, to say nothing of those that will almost certainly arise in the future.

Back in 1798, Parson Thomas Robert Malthus published his famous bombshell that was every bit as stunning to the world then as GMENAC is to the U.S. medical education community today. Contending that abject poverty and starvation were inevitable, he propounded the seemingly inexorable law that made this so: population increases by geometrical ratio and the food supply by arithmetical ratio. That was his mathematical model.

Ergo, to his precise mind, only war, family and disease could intervene to prevent mass starvation. He failed to predict improved technology, particularly in food production, and birth control, which have rendered his theories utterly false in the industrialized world.

That there is still some evidence of Malthusian mortality in undeveloped countries—Africa and Asia, for example—cannot be denied. But Malthus, like GMENAC, was really concerning himself with the civilized world. And he was dead wrong.

Isn't there at least a comparable likelihood that GMENAC has projected a known figure into an unknown future of exponential growth? Maybe. But one of the gems of information tossed out by Dean James A. Pittman, Jr., of UAB does gives us pause:

"Between 1980 and 1990 Alabama will produce more physicians than it produced in all its previous history."

Is there room for them in Alabama? To hear the feds tell it, in their description of "Medically Undeserved Areas," the demand seems to be unlimited. And I am looking at the map of the state that shows me one county of 11,000 souls (1970 census) with an area of 650 square miles, where our 1980 **Membership Roster** lists no MASA doctors.

So, whatever the future holds, at the moment our job is still coping with the physician **shortage** in many counties. That's why we maintain an up-to-date Physician Placement Service. That is why we participate in the annual Physicians Opportunity Fair. And so on.



S. Lon Conner

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For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine.

Some of our better known products are Ru-Tuss® and Ru-Vert® . This advertisement highlights three other products particularly useful for the family.

F-E-P CREME® **TWIN-K®** **SU-TON®**





For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin—Pramoxine HCl—Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (1/2 ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For Potassium Supplementation

TWIN-K®

Each 15 ml supplies 20 mEq of potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base.

The good tasting potassium supplement

- Designed for prophylactic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient b.i.d. dosage aid patient compliance.
- Avoids the problems of a chloride salt.

"The organic salt can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine."[1]

Note: In hypokalemic hypochloremic alkalosis, potassium chloride supplementation may be preferred.

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, p. 1959

See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.



Please send me patient starter samples of:

☐ **F-E-P CREME®**

☐ **TWIN-K®**

☐ **SU-TON®**

Name _____

Street Address _____

City _____ State _____ Zip _____

F-E-P CREME®

DESCRIPTION: F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic, preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE:

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows, "Possibly effective": Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma; nuchal eczema and chronic eczematoid otitis externa; acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris, corporis, pedis); moniliasis; intertrigo. Final classification on the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS: Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS: This product is not for ophthalmic use. In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY: Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboatory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS: F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period. Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests.

The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine. Prolonged use of this drug may result in an overgrowth of nonsusceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS: Skin rash or hypersensitivity may occur following topical application. The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliara. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION: Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. **F-E-P Creme** is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. **F-E-P Creme (Plain)** is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED:

F-E-P Creme	F-E-P Creme Plain
½ ounce (15 gm) tubes	½ ounce (15 gm) tubes
NDC 0524-0026-51	NDC 0524-0025-51

CAUTION: Federal law prohibits dispensing without a prescription.

TWIN-K®

DESCRIPTION: Each 15 milliliter (tablespoonful) supplies 20 mEq of elemental potassium as a combination of potassium gluconate (15 mEq) and potassium citrate (5 mEq) in a sorbitol base with flavoring.

INDICATIONS AND USAGE: For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS: TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS: Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8—5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since usually the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic E.K.G. and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS: Symptoms of potassium intoxication include paresthesias of the extremities, flacid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE: The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with E.K.G. changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10—20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION: The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of elemental potassium. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) or TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED: Pint bottles. NDC 0524-0021-16

CAUTION: Federal law prohibits dispensing without a prescription.

SU-TON®

DESCRIPTION: Forty-five ml of SU-TON contains the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE: SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS: Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS: The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS: Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS: Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE: Drug dependence has not been reported with SU-TON.

OVERDOSAGE: Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION: One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED:

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16

CAUTION: Federal law prohibits dispensing without a prescription.

AP-001 5-80 Printed in U.S.A

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Shreveport, LA. 71106

BOOTS PHARMACEUTICALS, INC.

Shreveport, Louisiana 71106

Pioneers in medicine for the family



For faster payment on Blue Shield and Medicare Part B claims, take this ad back to the office.

Now there's a way to get your Blue Shield and Medicare Part B claims processed and paid a lot quicker. Often in less than half the time it used to take.

It's called Procedure Code Billing. And in addition to helping speed the cash flow, it can also cut down on billing time.

Instead of having to write out the diagnosis and descriptions of treatment and procedures, your medical assistant simply types in short codes.

When your claim reaches us, it will require no coding and less preliminary paperwork and will go more quickly into final processing.

Blue Cross and Blue Shield provides free seminars on how to use Procedure Code Billing. And we'll work with your staff as they file claims to be sure they understand the system thoroughly.

So why wait longer for your claims payments than you have to?

For more information on Procedure Code Billing, ask your Professional Relations Representative or call our Birmingham office at 988-2533.

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U.S. POSTAL SERVICE

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(Required by 39 U.S.C. 3685)

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MANAGING EDITOR *(Name and Address)*
William H. McDonald, 19 South Jackson Street, Montgomery, Alabama 36197

7. OWNER *(If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be giving. If the publication is published by a nonprofit organization, its name and address must be stated.)*

NAME	ADDRESS
Non-Profit Organization Medical Association of the State of Alabama	19 South Jackson St., Montgomery, AL 36197

8. KNOWN BONDHOLDERS, MORTGAGEES, AND OTHER SECURITY HOLDERS OWNING OR HOLDING 1 PERCENT OR MORE OF TOTAL AMOUNT OF BONDS, MORTGAGES OR OTHER SECURITIES *(If there are none, so state)*

NAME	ADDRESS
Medical Clinic Board of the City of Montgomery, Alabama - Midtown, Montgomery, Alabama	

9. FOR COMPLETION BY NONPROFIT ORGANIZATIONS AUTHORIZED TO MAIL AT SPECIAL RATES *(Section 132.122, PSM)*
The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes *(Check one)*

☐ HAVE NOT CHANGED DURING PRECEDING 12 MONTHS ☐ HAVE CHANGED DURING PRECEDING 12 MONTHS *(If changed, publisher must submit explanation of change with this statement.)*

10. EXTENT AND NATURE OF CIRCULATION	AVERAGE NO. COPIES EACH ISSUE DURING PRECEDING 12 MONTHS	ACTUAL NO. COPIES OF SINGLE ISSUE PUBLISHED NEAREST TO FILING DATE
A. TOTAL NO. COPIES PRINTED *(Net Press Run)*	4,160	4,250
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2. MAIL SUBSCRIPTIONS	3,890	4,055
C. TOTAL PAID CIRCULATION *(Sum of 10B1 and 10B2)*	3,890	4,055
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E. TOTAL DISTRIBUTION *(Sum of C and D)*	4,055	4,210
F. COPIES NOT DISTRIBUTED 1. OFFICE USE, LEFT OVER, UNACCOUNTED, SPOILED AFTER PRINTING	105	40
2. RETURNS FROM NEWS AGENTS	n/a	n/a
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11. I certify that the statements made by me above are correct and complete.

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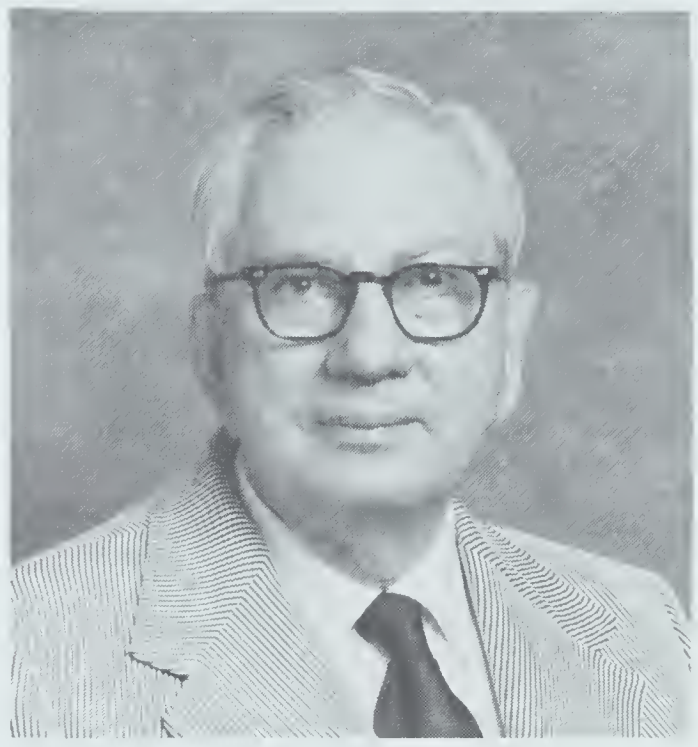
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39 U. S. C. 3626 provides in pertinent part: "No person who would have been entitled to mail matter under former section 4359 of this title shall mail such matter at the rates provided under this subsection unless he files annually with the Postal Service a written request for permission to mail matter at such rates."

In accordance with the provisions of this statute, I hereby request permission to mail the publication named in Item 1 at the phased postage rates presently authorized by 39 U. S. C. 3626.

SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER

2ND ANNUAL LEADERSHIP CONFERENCE



C. A. Lightcap, M. D.
President

The second annual Leadership Conference Jan. 15-16 will be devoted to the federal challenge we have all been talking about—the Federal Trade Commission, for example, and the national arbiters of Medicaid and Medicare.

It is not enough for physicians to "cuss the government" and let it go at that. If we are to prevent the complete take-over of our profession by gradual erosion of the privileges and responsibilities of private practice, we must know everything there is to know about federal intentions.

No general staff would think of planning its defense campaign without thorough reconnaissance of the enemy. I don't say the federal government is our enemy, but there are many in positions of power in the federal bureaucracy who would, if they could, destroy private medicine as we know it. I think that goes without saying.

Plan now to be at the Leadership Conference and learn as much as you can about the intentions of the health planners in Washington and Atlanta. You will find it a rewarding experience that will, I hope, open your eyes to the harsh realities of the 1980s.

CA Lightcap, MD

Guidelines For Controlled Substances

FROM DEA NEWSLETTER

The Drug Enforcement Administration has jointly issued with its Practitioners Working Committee, "Guidelines for Prescribers of Controlled Substances." The guidelines are suggested principles for good prescribing practices. Their purpose is to provide a responsible professional standard which can be followed by prescribers of controlled substances.

There are six general guidelines for prescribing and eight specific guidelines for prescription orders in the statement. The guidelines support the use of controlled substances for therapeutic purposes, while at the same time caution on awareness of the potential for abuse.

Martin Golden, National Association of Boards of Pharmacy Executive Committee member, and its representative on the DEA/Pharmacy Working Committee, suggested the Guidelines for Prescribers be published in the national news section of the Bureau of Voluntary Compliance state board newsletter project.

The following comprises only the guidelines and does not include the preface and statement of purpose.

General Guidelines

- Controlled substances have legitimate clinical usefulness and the prescriber should not hesitate to consider prescribing them when they are indicated for the comfort and well being of patients.
- Prescribing controlled substances for legitimate medical uses requires special caution because of their potential for abuse and dependence.
- Exercise good judgment in administering and prescribing controlled substances so that diversion to illicit use is avoided and the development of drug dependence is minimized or prevented.
- Guard against contributing to drug abuse through injudicious prescription writing practices, or by acquiescence to unwarranted demands of some patients.
- Each prescriber is asked to examine his/her individual prescribing practices to ensure that all prescription orders for controlled substances are written with caution.
- Make specific effort to ensure that multiple prescription orders are not being obtained by the patient from different prescribers.

Guidelines—Prescription Orders

The prescriber is granted through legal authority the right to prescribe medications that are necessary for the

continued on page 17

Tenuate® Ⓒ IV
(diethylpropion hydrochloride NF)

Tenuate Dospan®
(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy*: Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children*: Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular*: Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System*: Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal*: Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic*: Urticaria, rash, ecchymosis, erythema, *Endocrine*: Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System*: Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous*: A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to:
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.

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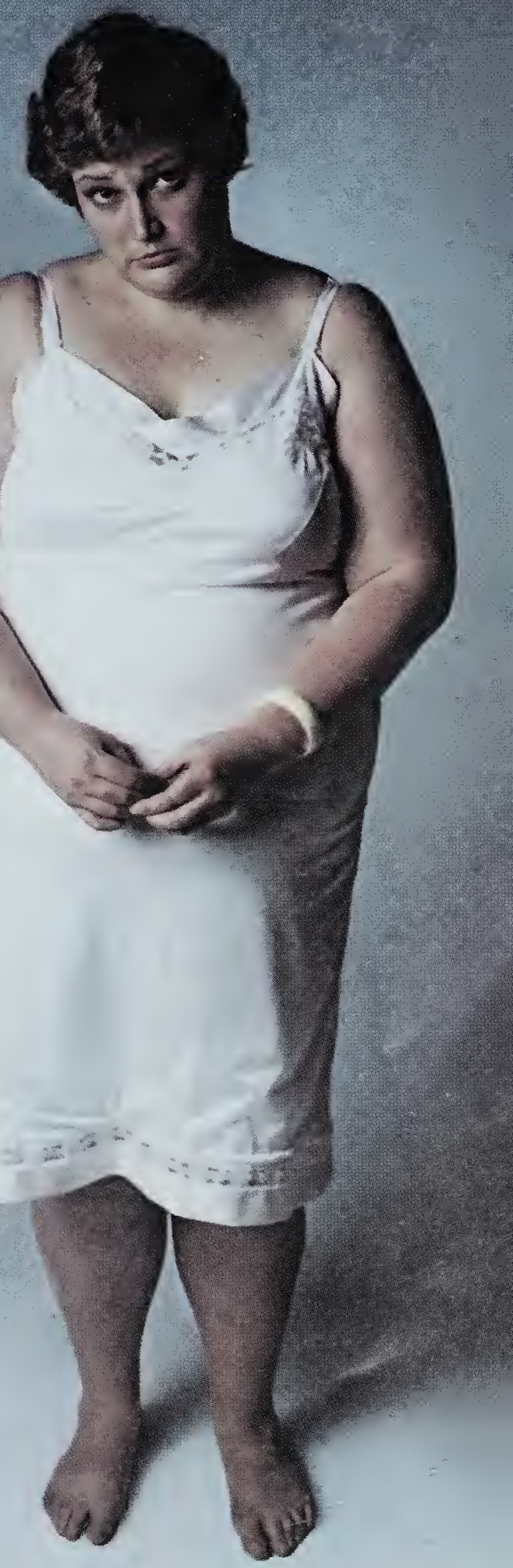
References: 1. Citations available on request from Medical Research Department, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon [Dillon], R.H., and Leyland, H.M.: A comprehensive review of diethylpropion hydrochloride. In, Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York, Raven Press, 1978, pp. 391-404.

Merrell

9-4672 (Y957A)

Overweight may not always be simple... complications can develop.*
Complicated or not...

Tenuate® Dospan® ℞
(diethylpropion hydrochloride NF)
75 mg. controlled-release tablets



A useful short-term adjunct in an indicated weight loss program.

Overweight patients in certain diagnostic categories often require strict appetite control and a successful program of weight reduction may tend to diminish the incidence or severity of the complications in some patients. Diethylpropion hydrochloride has been reported useful in such patients and while it is not suggested that Tenuate itself in any way reduces the complications of overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. **Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on the opposite page.**

In uncomplicated overweight.

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness.

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

Tenuate—it makes sense. And it's responsible medicine.

*Studies have shown that obesity is associated with an increased incidence of hypertension, symptomatic heart disease, adult-onset diabetes, and other diseases.

Merrell

For prescribing information see opposite page.

α

Alpha Stimulation

Central Control of Blood Pressure*



"The Family of Man" by Roberto Moretti,
a statuary in crystal symbolizing the broad range of
hypertensive patients eligible for therapy with Catapres.

The Alpha Advantage:

It's for all kinds of hypertensives

- *Unlike beta blockers, Catapres® has no contraindications.*
- *Catapres can be useful even in these patients with:*

Congestive heart failure	Allergic rhinitis
Ventricular hypertrophy	Hepatic disease
Hyperglycemia	Hyperuricemia
Diabetes mellitus	Gouty arthritis
Bronchial asthma	Sulfonamide hypersensitivity

Like any antihypertensive, use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

work/play—normal hemodynamic responses to exercise maintained.

love—low incidence of impotence and/or loss of libido: 2.8% in 1,923 patients studied.[1]

cardiac output—tends to return to control values during long-term therapy.

blood flow—preserved in kidney.

No Single Advantage Determines Drug Choice.

Other factors must include:

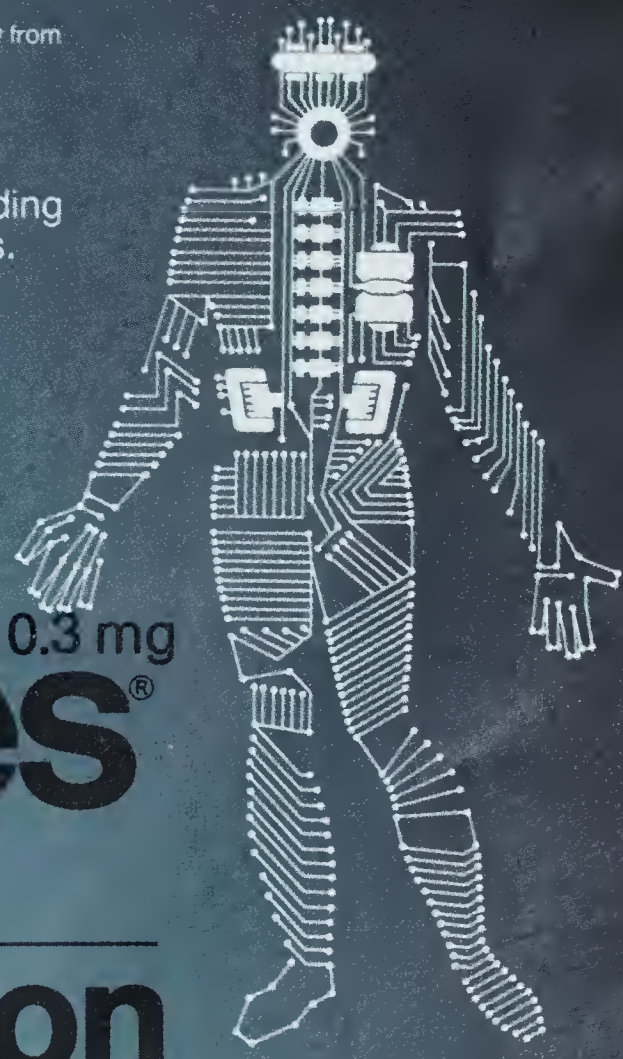
The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

*Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

1 Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.

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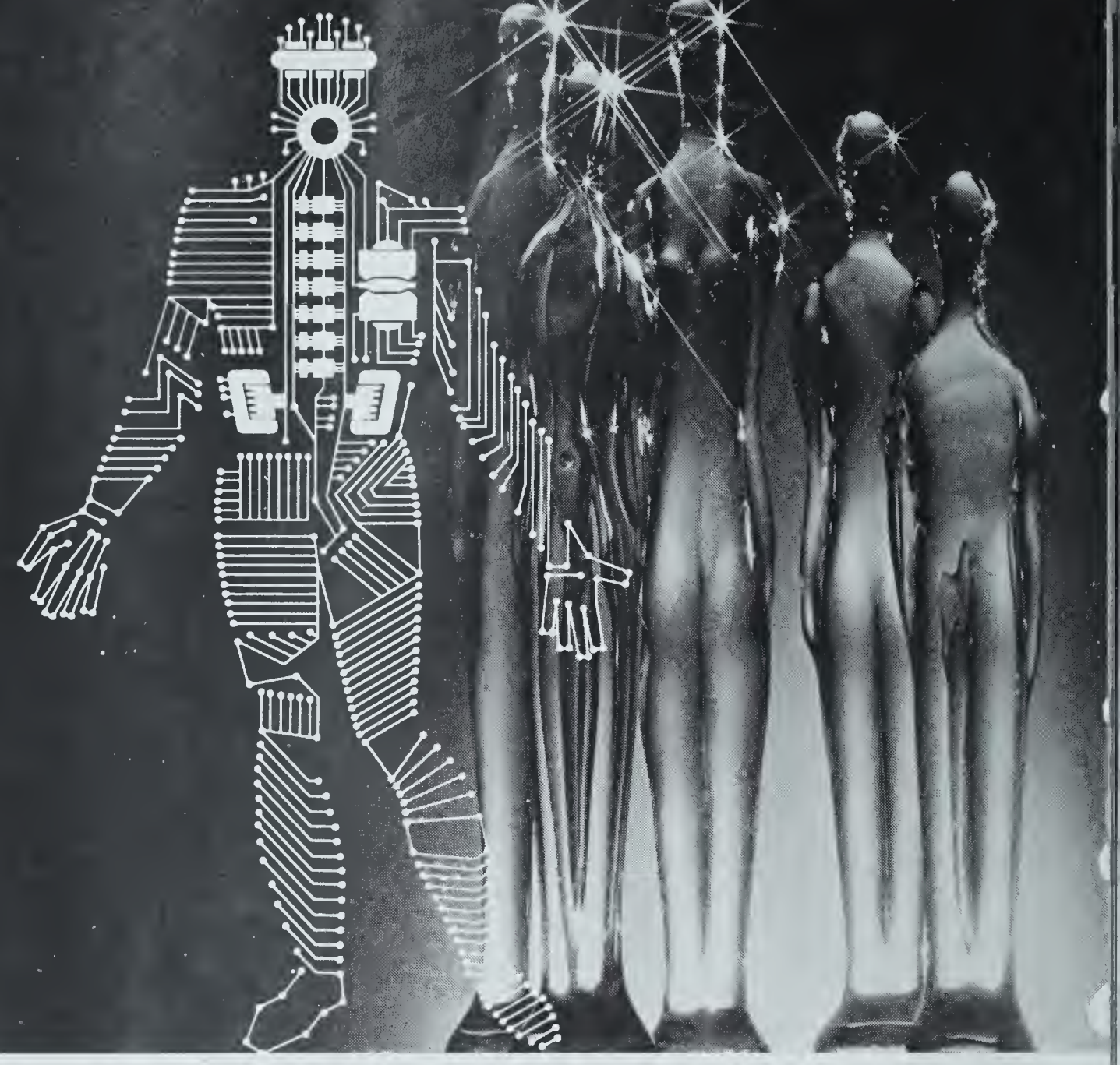
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Hypertension



- No contraindications.
- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefit from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

Catapres®
(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an antihypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.
Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.
Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of spontaneously occurring retinal degeneration in albino rats treated for 6 months or longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness and sedation. Constipation, dizziness, headache, and fatigue have been reported. Generally these effects tend to diminish with continued therapy. The following reactions have been associated with the drug, some of them rarely. (In some instances an exact causal relationship has not been established.) These include. Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormalities in liver function tests; one report of possible drug-induced hepatitis without icterus and hyperbilirubinemia in a patient receiving clonidine hydrochloride, chlorthalidone and papaverine hydrochloride. Weight gain, transient elevation of blood glucose, or serum creatine phosphokinase: congestive heart failure, Raynaud's phenomenon; vivid dreams or nightmares, insomnia, other behavioral changes, nervousness, restlessness, anxiety and mental depression. Also rash, angioneurotic edema, hives, urticaria, thinning of the hair, pruritus not associated with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryness, itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecomastia, weakly positive Coombs' test, asymptomatic electrocardiographic abnormalities manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished or absent reflexes and vomiting followed the accidental ingestion of Catapres (clonidine hydrochloride) by several children from 19 months to 5 years of age. Gastric lavage and administration of an analeptic and vasopressor led to complete recovery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-minute intervals usually abolishes all effects of Catapres, (clonidine hydrochloride) overdosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 mg (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. Also available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

For complete details, please see full prescribing information.
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Guidelines for Controlled Substances

Continued from page 12

proper treatment of his/her patients. Prescribing is governed by laws and regulations which set minimum standards and requirements.

These guidelines, tempered with good moral and ethical considerations, give guidance to going beyond the minimum requirements.

- The prescription order must be signed by the prescriber when it is written. The prescriber's name, address, and DEA registration number and full name and address of the patient must be given when prescribing controlled substances.
- The written prescription order should be precise and distinctly legible to enhance exact and effective communications between prescriber and dispenser.
- The prescription order should indicate whether or not it may be renewed and, if so, the number of times or the duration such renewal is authorized.
- Prescription orders for drugs in Schedules III, IV, and V may be issued either orally or in writing and may be renewed if so authorized on the prescription order. However, the prescription order may only be renewed up to five times within six months after the date of issue.
- A written prescription order is required for drugs in Schedule II. The renewing of Schedule II prescription orders is prohibited. Only in an emergency situation may oral orders for Schedule II drugs be accepted by a dispenser. Such oral orders must be followed up by a written order within 72 hours.
- Controlled substances which are prescribed without indication for renewal cannot be renewed without authorization by the prescriber. Prescribe no greater quantity of a controlled substance than is needed until the next check-up.
- Try to make prescription orders alteration-proof.
- When prescribing a controlled substance, write out the actual amount in addition to giving an Arabic number or Roman numeral in order to discourage alterations in written prescription orders.
- Prescribers are encouraged to consider placing a number of check-off boxes on their prescription blanks which show amounts within which the prescribed amount falls, i.e., 1-25, 26-50, 51-100, over 100. Use a separate prescription blank for each controlled substance prescribed.
- The use of prescription blanks which are preprinted with the name of a proprietary preparation should be discouraged.
- When institutional prescription blanks are used, the prescriber should print his/her name, address, and DEA registration number on such blanks.
- Institutions should discourage the use of institutional prescription blanks for prescribing controlled substances.

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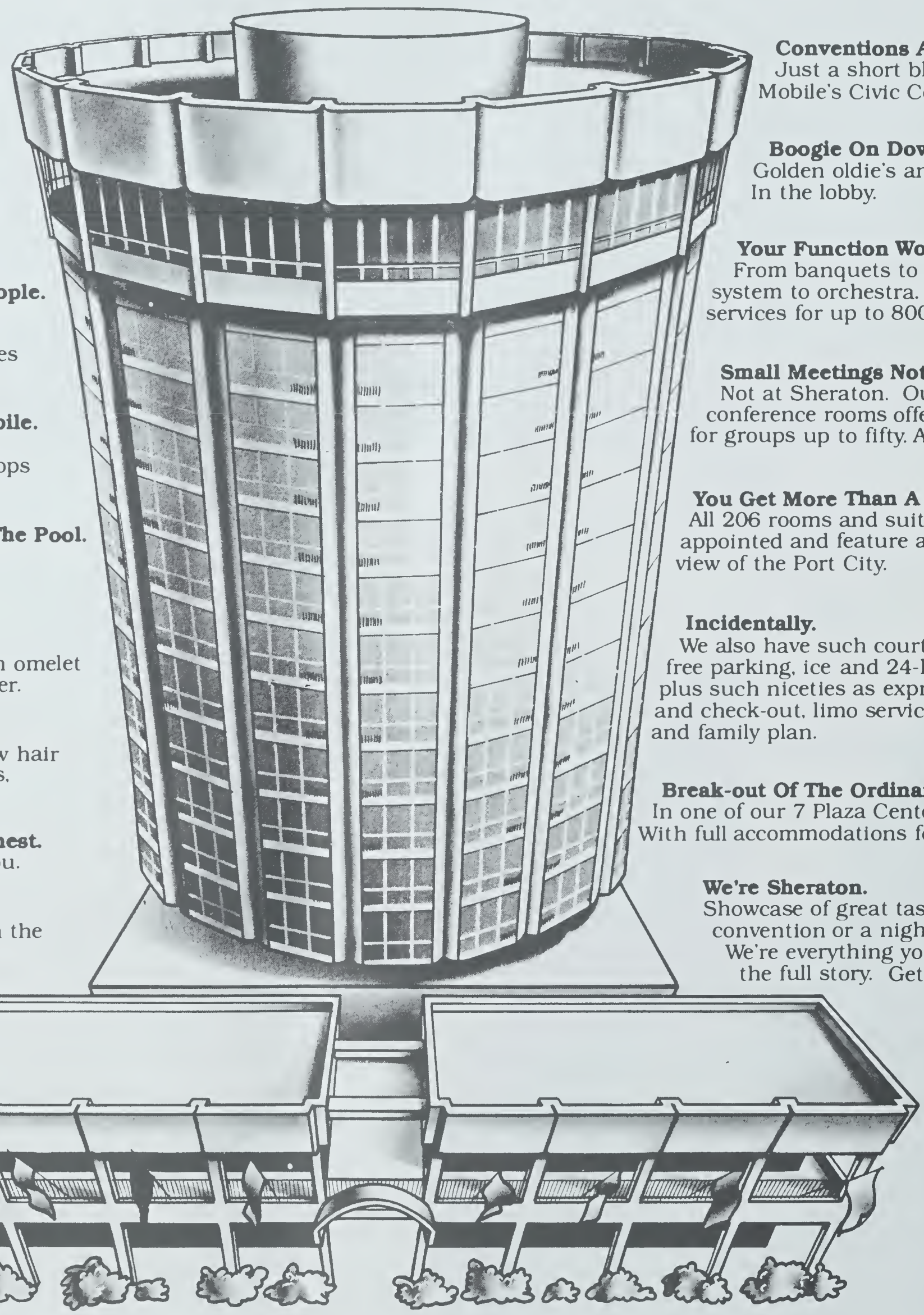
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Dr. John Rice: Extracting The Wine of Life

By William H. McDonald

When John B. McFerrin Rice, Jr., M.D., opened his practice in Florence in December 1951 he shelved an interest that he would not take up again for more than 25 years.

In 1950-51, he served as a Flight Surgeon at the Rhine Main Air Force Base, Frankfurt, Germany. While there, he had been initiated into the lore of wine-making by the brother of his German national secretary, a man who served as winemaster to an old firm.

Having seen the art in practice and visited some of the famous Rhineland vineyards, Dr. Rice was enthralled. But, like many busy physicians, he never seemed to find the time to try his hand at wine-making, except for casual attempts to do something with a concord grape arbor at his lake retreat.

It took a near-fatal accident at his home to give him the enforced period of contemplation he needed. On March 10, 1979, he fell from the roof of his home while cleaning the chimney in preparation for the arrival of his three children to celebrate his 57th birthday the next day.

Crashing to earth near his front door, Dr. Rice smashed his left wrist, broke his jaw in two places, fractured ribs, punctured a lung, and suffered a kidney contusion.

His three-month convalescence turned his mind to the vineyard he had long wanted.

This fall he has first completed his second harvest of grapes, which yielded about 100 bottles of wine of five types. Two of the five will be "very good," and the others "nice," he says (adopting that characteristic reserve and understatement of the scientific vintner).

Since he placed second last winter in a wine-tasting contest, it may be supposed that this year, or in a year soon to come, John Rice Vine Tree Farm will produce a wine acclaimed as "great" by those qualified to make that ultimate assessment.

On a recent October weekend, Dr. Rice was ordering his final vines, mostly French hybrids on American root stock, which will bring him closer to the objective he now has for his vineyard—46 varieties, including both desert grapes and viniferas, in an area 100 x 100 feet.

If this sounds smaller than you might expect of the dynamic former President (1977-78) of MASA, Dr. Rice is quick to point out that some of the most famous vineyards of France, vineyards that have been in production for centuries, occupy less than three acres.

Think Small

One does not, after all, think on the grand scale when the subject is wine. One thinks small. The nuances of taste, color and bouquet are everything—often escaping the discernment of all but connoisseurs. The bourbon and branch set has been known to laugh aloud at what is perceived as the intellectual posturings of wine lovers, but the latter number is growing rapidly, as recent statistics prove. Moreover, now that table wines of some character are available in grocery stores, many young people who once grabbed up a few six packs for their weekend gusto can be seen carefully selecting wines and loudly proclaiming their superiority.

Thomas Jefferson, America's authentic man for all seasons, wrote a French friend in 1818:



The harvest over, Dr. Rice can spend the winter planning next year's vineyard.

"No nation is drunken where wine is cheap; and none sober where the dearness of wine substitutes ardent spirits as the common beverage. It is, in truth, the only antidote to the bane of whiskey."

Twenty years ago, America's wine drinkers were an embattled minority. Today, their ranks are swelling. Droves of Americans are turning from the harder stuff to the pleasures of the vine.

And that suits Dr. Rice just fine. He was amused by the highfalutin mystique that some have attached to wine, the kind of exotic snobbery that possibly reached its zenith (or nadir) in a comment snob expert Russell Lynes swears he heard at a New York party:

"This is an adequate little wine but I think you will be amused by its presumption."

The Grape Belt

Florence is far enough north to be well within the new winegrowing region of the South, a region that has always had its grape arbors, muscadines and scuppernongs, where a little home winemaking is not only a family tradition but one immunized by law against the revenooers who have fought a losing battle with the region's moonshiners over the generations.

However, commercial production of wine grapes is something relatively new to the region. But this interest is spreading, down the eastern seaboard, across the Carolinas westward through the higher elevations and more moderate temperatures of Northern Georgia, Alabama, Tennessee and Mississippi, at least as far as Arkansas.

One day, some say, the region could rival California, which has produced about nine-tenths of the nation's domestic wine, and certainly New York State, which has accounted for most of the rest.

Dr. Rice is not, of course, planning commercial production but the Tennessee Valley Authority in the area has something close to that in mind. It is currently experimenting with vineyards, trying to find the most suitable grape for uses such as cover for areas scalped by strip mining.

This experiment has been hobbled by the widespread theft of TVA's grape harvest by citizens in the experiment areas.

Because of such losses, it is impossible for TVA's vine specialists to weigh yields.

A Precise Art

If he had had any delusions about the ease of winemaking, Dr. Rice was soon to lose them. It is a precise art and science involving two general areas of expertise—growing the grapes and making the wine.

Both are subject to all the vicissitudes of weather, accident, and nameless gremlins, the first being largely agricultural and the second principally chemical.

Vineyards do best where the growing season is not too wet, according to Dr. Rice. While the drought of '80 played havoc with other crops, his grapes did quite well, even as his fruit trees expired.

The great wine years are usually determined by a happy coincidence of many factors, thus accounting for their relative rarity. While French varieties of vinifera grape are highly prized by American growers, in many areas of the South they perform best when grafted onto American root stock.

Having just completed his harvest and his winemaking, Dr. Rice can relax for a few months with little more to do than continue his reading on the subject and to order new vines for next year, while sampling his wares. Following is a seasonal calendar of the winemaker's year:

January and February. All the "old wood"—the vines that produced the grapes of 1980—must be cut away and the fruiting wood replaced with new growth.

If this is not done, the old wood will become huge vines next year with fruit.

"The natural tendency of the grape vine is to produce vine, not grapes," Dr. Rice explains. "If you control the growth, the vine will then be forced to put all that energy into grape production, so that you end up with a small plant and tremendous grape production."

A single plant in a good year ought to produce 20 to 30 pounds of grapes. Since it takes 40 or 50 pounds of grapes to make five gallons of wine, that means a single, moderately productive plant should produce 2½ to 3 gallons of wine.

Dr. Rice opted by for the four-arm kniffin system for supporting his plants. From the single vine, arms branch out in two directions at two levels. Each of these four arms has eight nodes carefully pruned on each, making 32 nodes in all per plant. Each of the nodes Dr. Rice cuts into the vine will have one or more bunches of grapes.

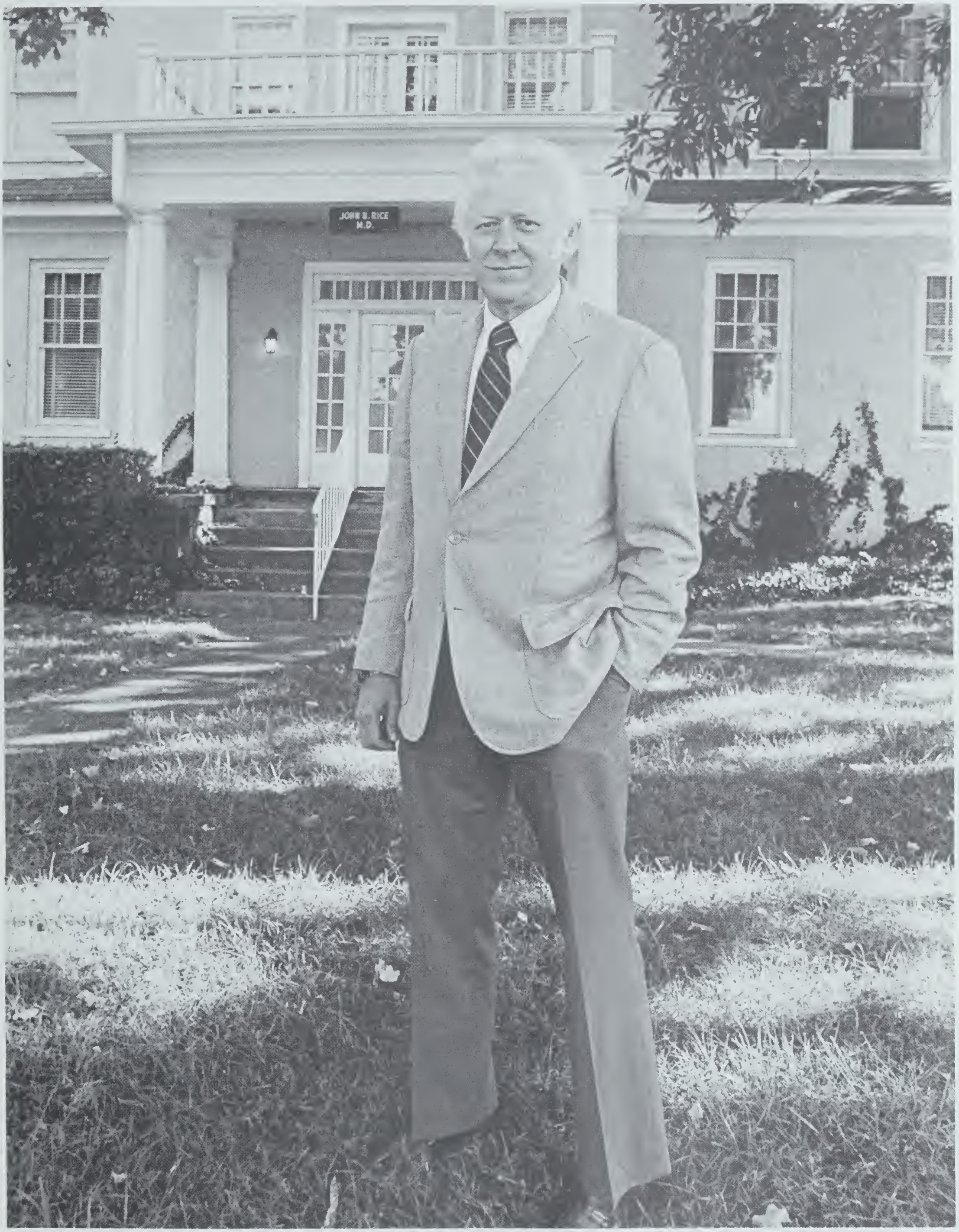
Vines being naturally hungry for territorial expansion, you have to watch them or they will encroach on their peaceful neighbors. Dr. Rice is the impartial judge in such matters, much like an international peace-keeping force. When a transgression occurs, he lops off the offending tentacle immediately, thus keeping peace in the valley.

March and early April—Dr. Rice puts the disc on his tractor and goes through the center of 10 foot rows, breaking up the topsoil. Then he fertilizes. While the weather is still cold, he sprays to forestall the scale diseases. This must be done before green growth.

Also beginning in April, depending on how wet it is, he uses a multiple spray every 10 days or two weeks to control the mildews that can damage the clusters when they begin to develop.

April, May and June—New grapes are developing, a rewarding sight as they pass through the flowering stage with a flower that "looks like an old-fashioned football helmet," as Dr. Rice describes it, "with four little ridges coming to a peak." Under the cap is the stamen.

Most grapes are self-fruitful, which doesn't mean immaculate conception but that they are wind-pollinated



Dr. Rice's office, one of the oldest houses in Florience, was built in 1830.

by their neighbors, without any assist from bees or other insects.

Dr. Rice has a flourishing bee tree nearby that might prove handy should artificial insemination ever be needed. "One of the biggest problems is that you have to get out early in the morning to spray the vines, or late in the evening, at times when bees are not around. Otherwise the spray will kill them."

About six weeks after the first flower, you have nice little grapes, the fulfillment of last winter's dreams. The harvest begins in early August and continues, with some varieties such as Cascade, all the way to cooler weather. In other parts of the country the harvest does not begin until September.

Compatible varieties are growing on the same vine and are usually harvested together—Catawpa and Niagara, for example. Boca Noir has proven to be one of the best wine grapes in this part of the country, Dr. Rice says. It is a direct lineal descendant of Pinot Noir, perhaps the world's most famous grape. Others in his vineyard, or soon to be, include:

Foch, Decheaunac, Seibel, Villard Blanc, Interlaken, McCampbell, Shuyler, Seneca, Steuben, Urbana, Alden, Bath, Chenin Blanc, Gamay, Gewurtz Pinot, Chardonnay, White Riesling, etc.

The balance of the summer, until harvest begins, is spent in routine maintenance, spraying as needed, and contemplating the harvest. Also, pruning aggressor vines.

August—Harvest time and the beginning of the winemaking.

Black or dark-skinned grapes are crushed before being dumped in the rapid fermentation vat. The blending of varieties is an art in itself. Dr. Rice may use one for color, another for taste, another for bouquet, or aroma—"Buffalo, for instance, has a great smell."

If acidity check reveals acid level is not high enough, Dr. Rice adds special acids, or he may decrease it. Specific gravity determines sugar content and hence alcohol. When it goes wrong, "you may end up with some marvelous wine vinegar." This is adjusted by adding sugar.

Wine yeast and a nutrient material are added, producing two or three days of rapid bubbling and foaming. During this period stirring is necessary two or three times a day.

When the period of an active fermentation subsides, the mass is put into the press to extract the wine. This yield is transferred to a big container—Dr. Rice uses five-gallon carboys—with an air lock that permits the CO_2 to escape without admitting air. Air is the enemy of winemaking, producing all kinds of evils, including darkening of the color. Winemasters hate oxygen.

Primary fermentation takes about a week or 10 days. Then you press the wine out of the mass and put it in bottles, where fermentation continues in a controlled environment for several weeks. Then you siphon the wine off, leaving the lees. This process is called fining.

By the end of October, you are through for the year and have a proud cellar of wine to drink. This fall, Dr. Rice will have completed his plant buying: "Once in business, you don't buy any more plants; you use cuttings from the previous year."

Contrary to popular belief, some wines do not improve with aging, but actually deteriorate. Scuppernong is one of these. Dr. Rice uncorks no wine before its time, but times vary, Orson Welles to the contrary notwithstanding.

A Closely Knit Family

The oldest of the three Rice children, Steven, 30, is a resident in psychiatry at the University of Tennessee, Memphis; Carolyn Hughes is a respiratory therapist and lives on a cattle farm managed by her husband near Hartselle; Robert is a computer sales engineer with Fairchild Industries, living outside Washington, D.C.

The Rice family spent their summers in a charming lake house on nearby Lake Wilson. It was here, perhaps, that the family became so closely knit and where the children were taught the responsibility and self-reliance now serving them well in their separate lives.

In winemaking Dr. Rice has found a consuming interest that had been on hold for more than a quarter of a century. As MASA President, he led the way to the Association's Impaired Physician Program and firmly believes that the avocational interests of physicians play a major part in their capacity to cope with the demands of the most strenuous and killing of all professionals.

Dr. Rice has always tried to find time for such outside pursuits in his busy solo practice. An expert photographer, he is also a competent bricklayer, carpenter and general handyman.

Keen, alert, with a wry sense of often self-deprecating humor, Dr. Rice can laugh now at the accident that all but ended his career. In point of fact, he laughed at the time, as when the Board of Censors wired him teasingly that he had discovered what it was like to be impaired himself; or when he received a certificate of membership in a phony organization dedicated to those who failed in their attempts to repeal the law of gravity.

Warm and friendly and outgoing, Dr. Rice is a forceful man who seems to project the meaning of the iron fist in the velvet glove. Some of that may derive from his childhood as the son of a Methodist minister who was posted from one church to another over north and central Alabama. There is also the suspicion that Dr. Rice's well-modulated speaking voice may have echoes of the pulpit in it, but that is only conjecture that he would quickly reject as nonsense.

In short, while intensely devoted to his calling, Dr. Rice has managed to extract from the juices of life enough of its taste, color and bouquet to make all the difference.



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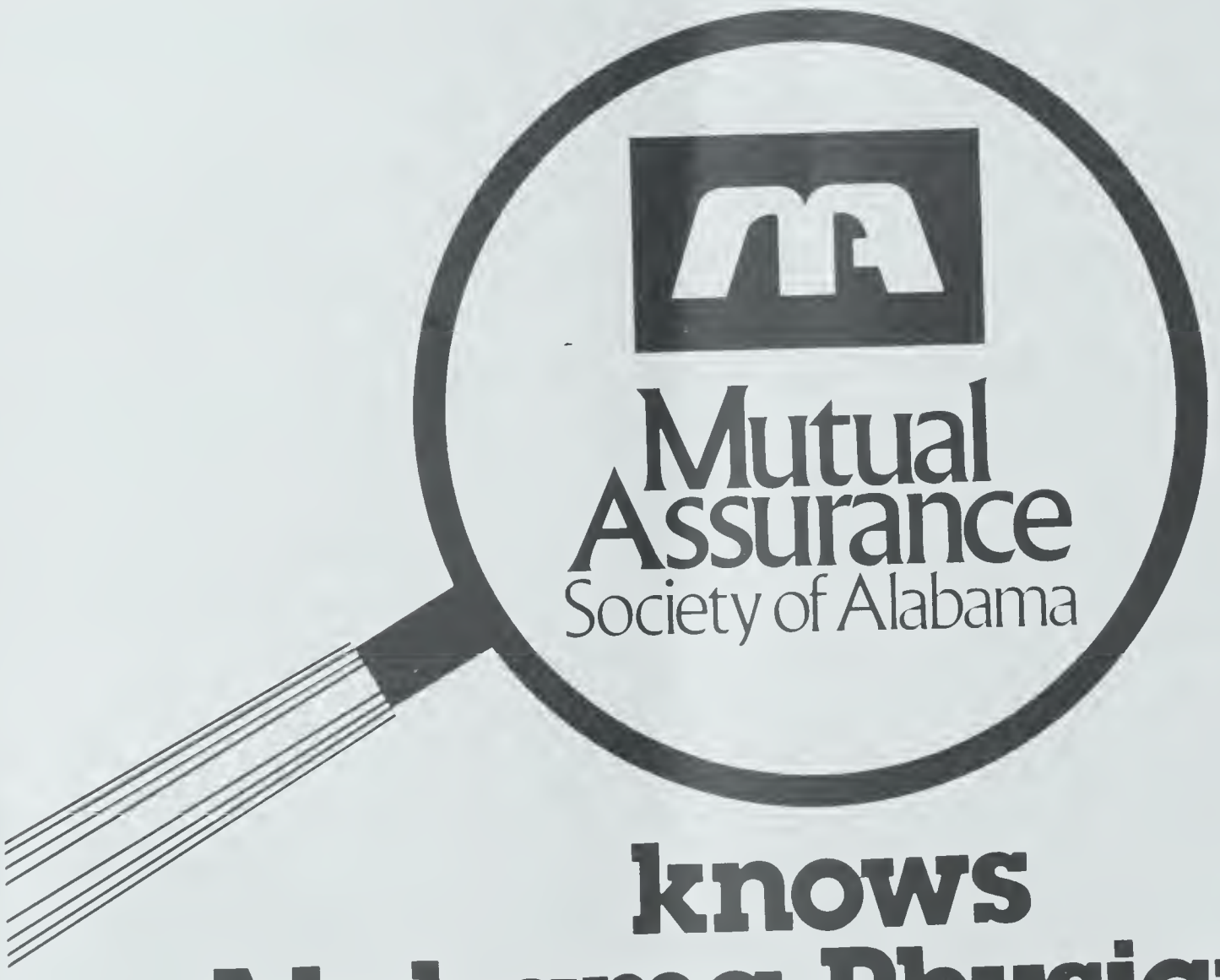
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EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.
Final classification of the less-than-effective indications requires further investigation.
The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported; most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

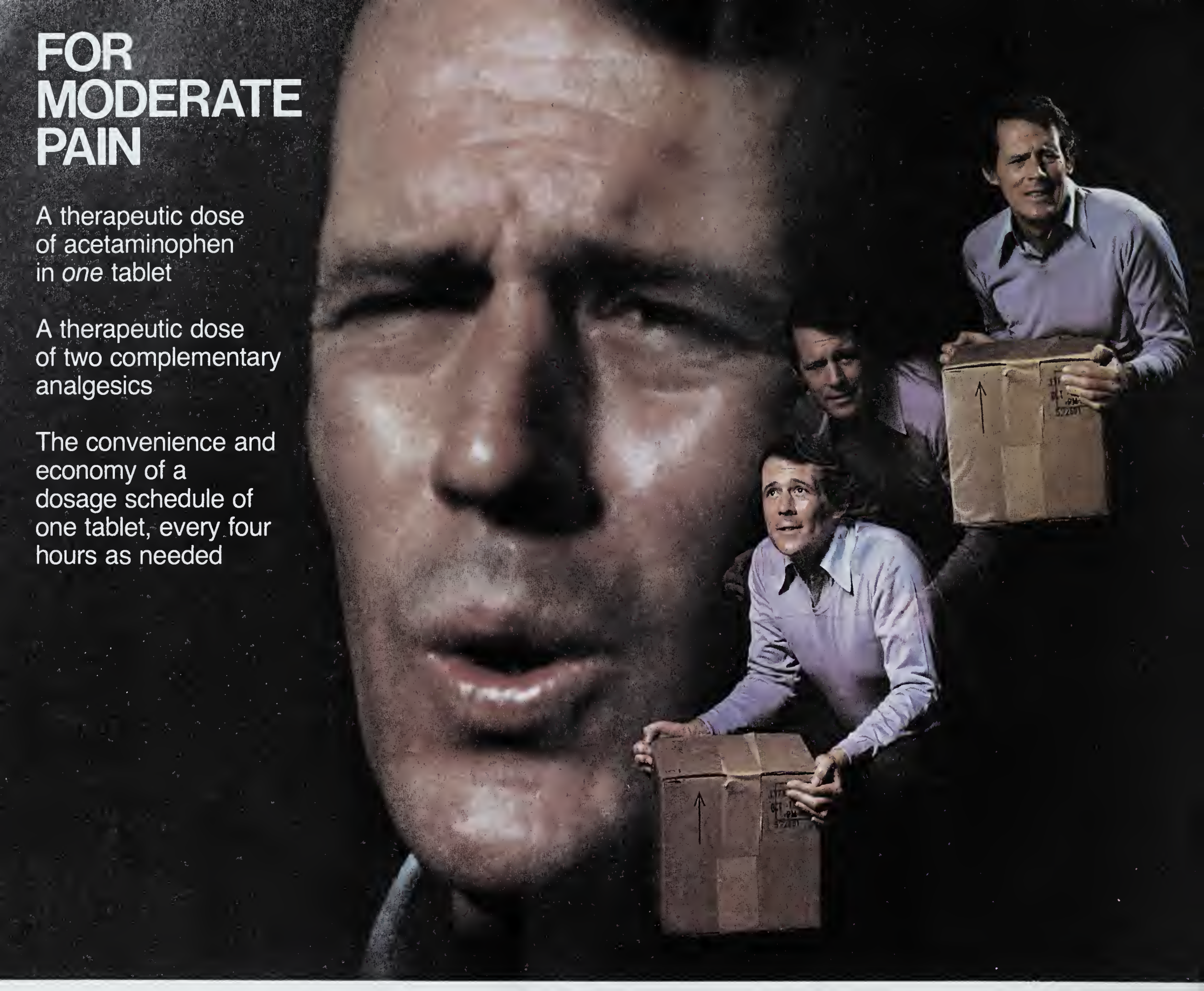
OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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WHY NOT WYGESIC® ©IV

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain.

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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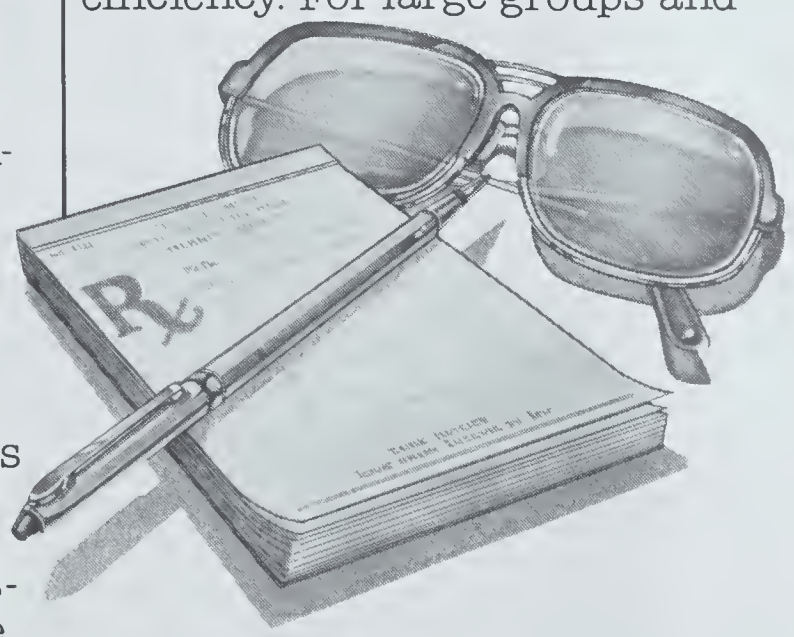
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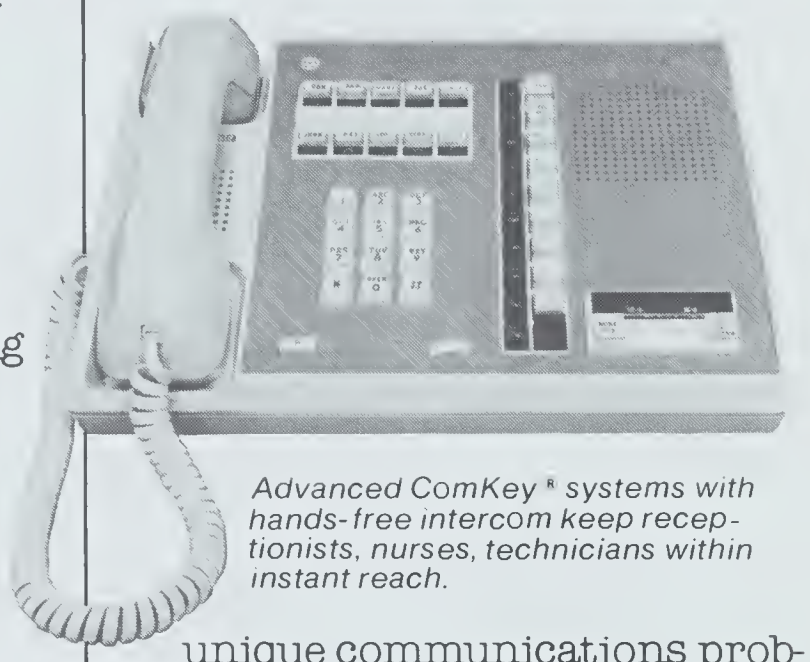
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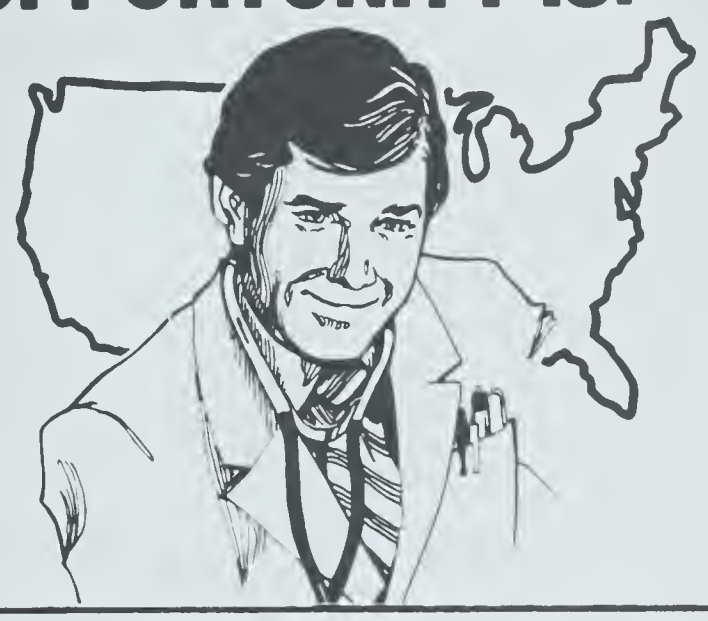
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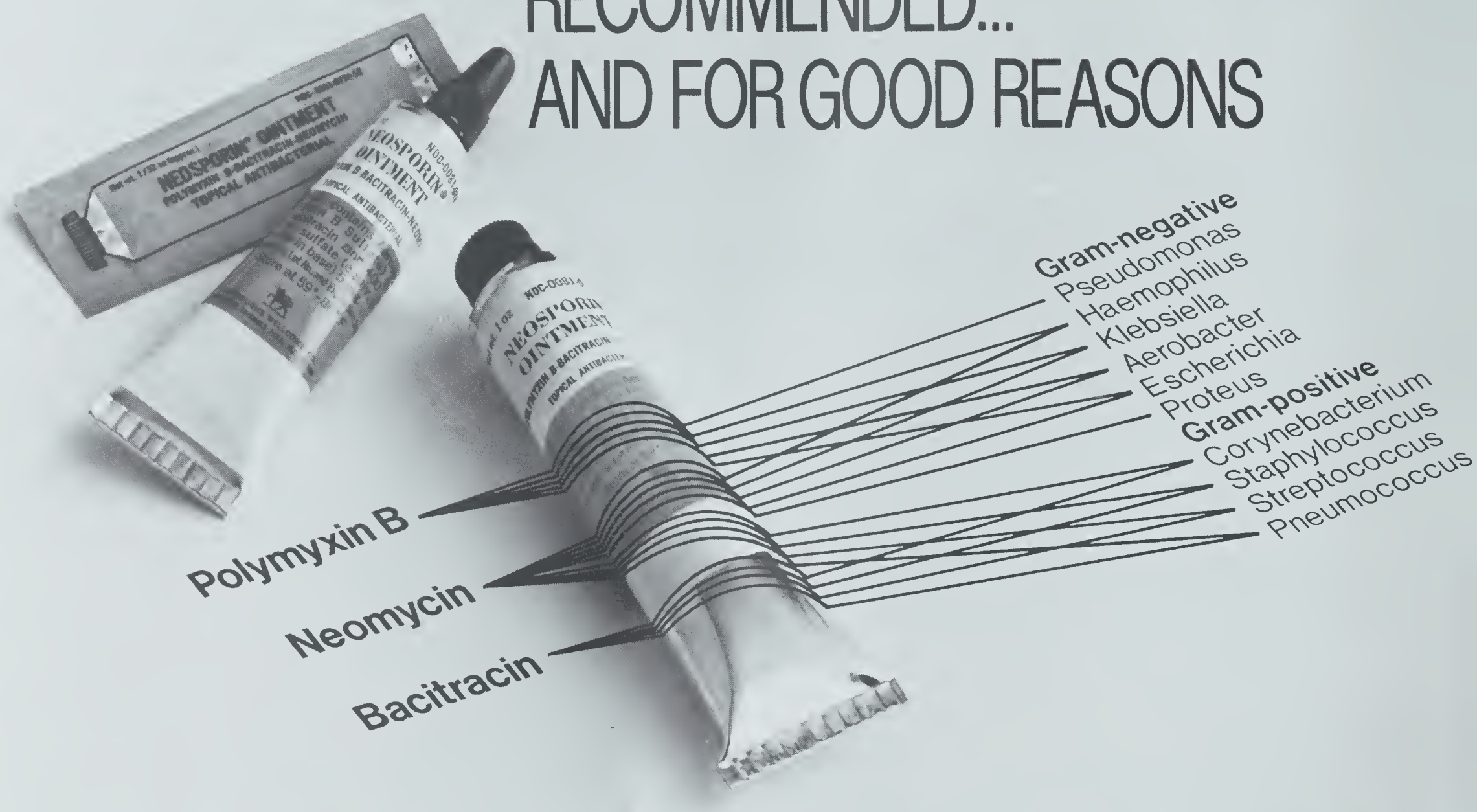
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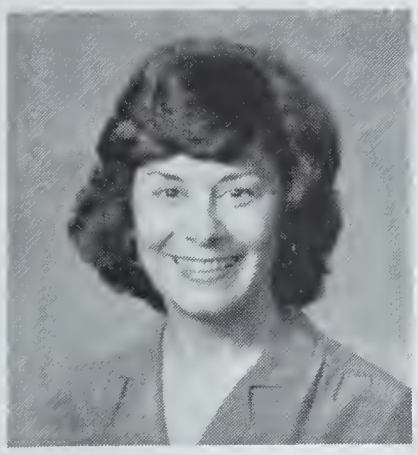
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DOCTOR, ARE YOU PRACTICING WHAT YOU PREACH?

A doctor's wife once wrote to Dear Abby and was very concerned about her husband's unhealthy life style. He tells his patients to eat right, get plenty of rest, don't smoke, maintain a moderate weight, don't drink at all or drink in moderation, and exercise two or three times a week. My husband is overweight, smokes too much, rarely takes time to eat a well-balanced meal, gets very little uninterrupted sleep and the only regular exercise he gets is getting in and out of the car going back and forth to the hospital!

Abby's answer to concerned was "tell him to be sure he has a lot of insurance all paid up so you and your next husband can have a good time together." Sometimes it takes a drastic approach to get someone's attention, but the truth is that most people really don't get concerned about their health until they or someone they love becomes unhealthy. Most people today have no desire to be as old as Methusalah, who lived 969 years, but a majority don't want to check out of life prematurely.

Despite modern medical technology, staying alive and healthy into the 70s, 80s or even 90s is not easy. Furthermore, people who try to watch what they eat, exercise regularly and avoid smoking, as doctors suggest, are still zapped by cancer-causing agents that seem to be all around us.

But while we have little control over harmful environmental factors that can do us in before our time, health experts maintain that a lot can be done to curb indulgent life-styles that are largely responsible for cutting people down in their prime.

According to the National Cancer Institute, for example, at least one-fourth (100,000) of the annual deaths due to cancer in this country could be prevented if people changed some of their bad habits, such as giving up cigarette smoking.

Dr. John H. Knowles, president of the Rockefeller Foundation, says that 99% of the people in the world are born healthy. But many die prematurely of such bad habits as smoking, drug abuse, overeating, not exercising, driving too fast and not getting enough sleep. Consider this, Knowles says:

The greatest killers in terms of disease today—lung cancer, heart attack and stroke—are those that thrive on unhealthy living patterns, including smoking, overeating and lack of exercise.

While many people in the last few years have kicked the smoking habit, Knowles laments the fact that Americans are still eating too much:

"Forty per cent of the American population is 20 pounds or more overweight, which is associated with all kinds of health problems, including heart disease, stroke, hypertension and diabetes."

Nearly 1 million lives per year can be saved if people change some of their bad habits and begin to pay more attention avoiding potential health problems.

Ponder these facts assembled by the National Cancer Institute, Amercan Cancer Society and the American Heart Association.

- If people didn't smoke, at least 80% of the 98,000 annual deaths from lung cancer, cancer of the larnyx, mouth and esophagus would be prevented.

- If people cut down on consumption of animal fat, exercised more and didn't smoke, the annual death rate from heart attack, 638,000, would be considerably decreased.

- The mortality from heart disease is 3.6 times higher in smokers than nonsmokers. If people curbed their salt intake and didn't smoke, the yearly deaths due to stroke, 183,000, would be cut significantly.

Nutritionist Dr. Carlton Fredericks contends that improper diet is a prime factor in promoting serious illnesses and premature deaths. Yearly consumption of sugar in this country is 120 pounds per capita, which is contributing to obesity and hypoglycemia and increases blood-clotting tendencies that can lead to coronary thrombosis.

Hypertension, which afflicts 23 million Americans, could be reduced by cutting the average salt consumption, which is 2% of the diet, precariously close to the danger level, which is 2.7%. Avoiding salt, however, is

no easy task because sodium is in just about everything we eat.

Cutting down on the amount of food consumed, according to some experts, is another way to cut down on premature deaths. "If you could suddenly wave a wand to eliminate all the obesity in the population, you'd be more likely to increase life span than by any other means," according to Dr. Nathan Shock, former scientific director of Gerontology Research Center in Baltimore.

How can people avoid heart disease? According to Dr. David M. Berkson, chief of St. Joseph Hospital's cardiovascular disease section in Chicago: exercise, quit smoking, lessen egg consumption and substitute vegetable oil for butter, fish for red meat and skim milk for whole milk. To avoid stroke, cut intake of salt, quit smoking and keep your weight down.

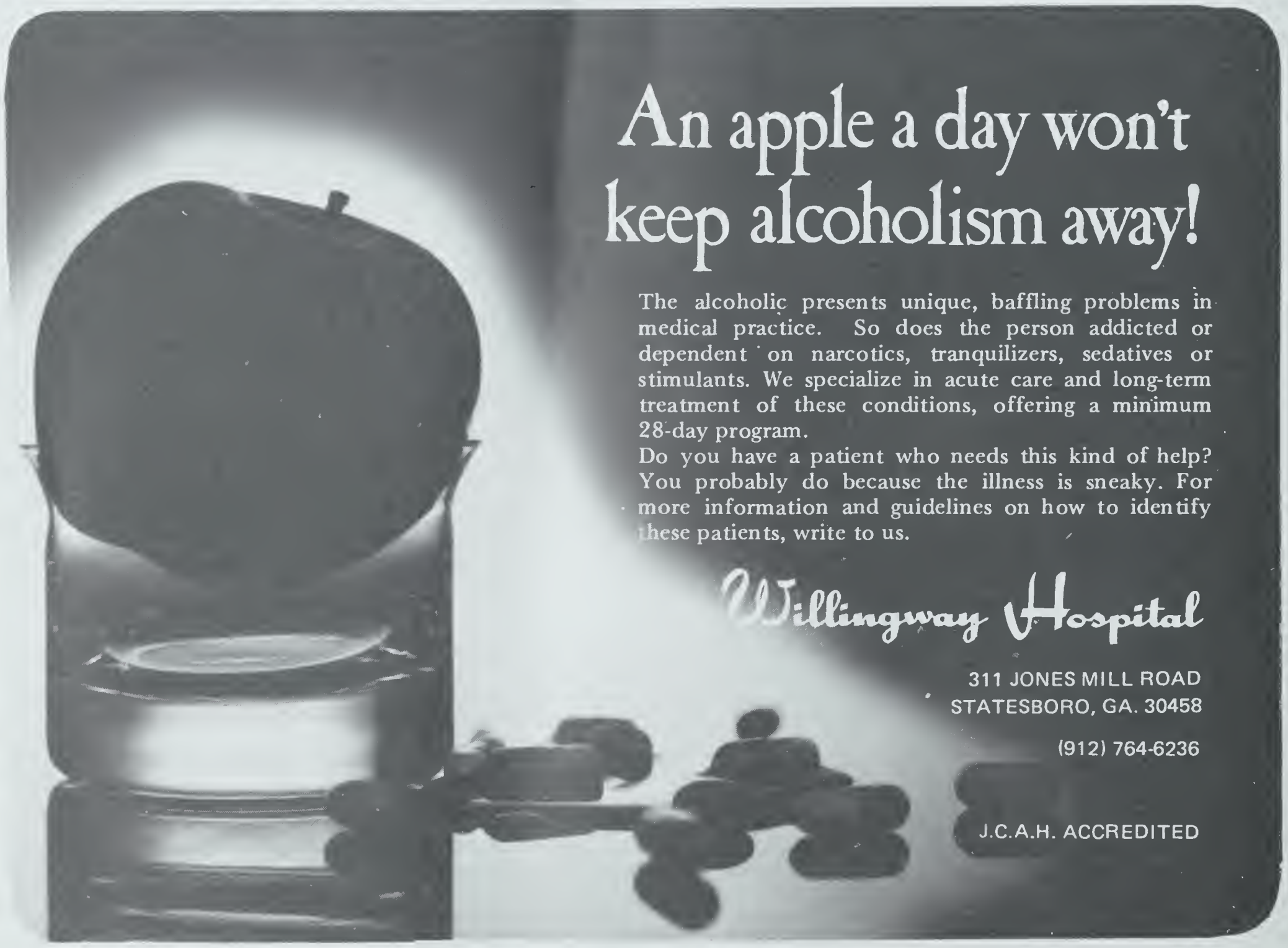
Is there a link between your sex life and longevity? Chicago general practitioner Dr. Eugene Scheimann, author of **Sex Can Save Your Heart and Life,** is among those who believe there is. He is one of a growing number of physicians who believe that regular sexual activity is good for a person's health, and may actually improve your chances of reaching a healthy old age. Sexual activity, especially in middle age, increases people's—sense of well-being, Scheimann says, maintains the balance of our body chemistry and hormones, resulting in a slowdown of the aging process. Before you put down Dr. Scheimann's theory, consider this: He says he is still sexually active and he's an 82 year-old great-grandfather.

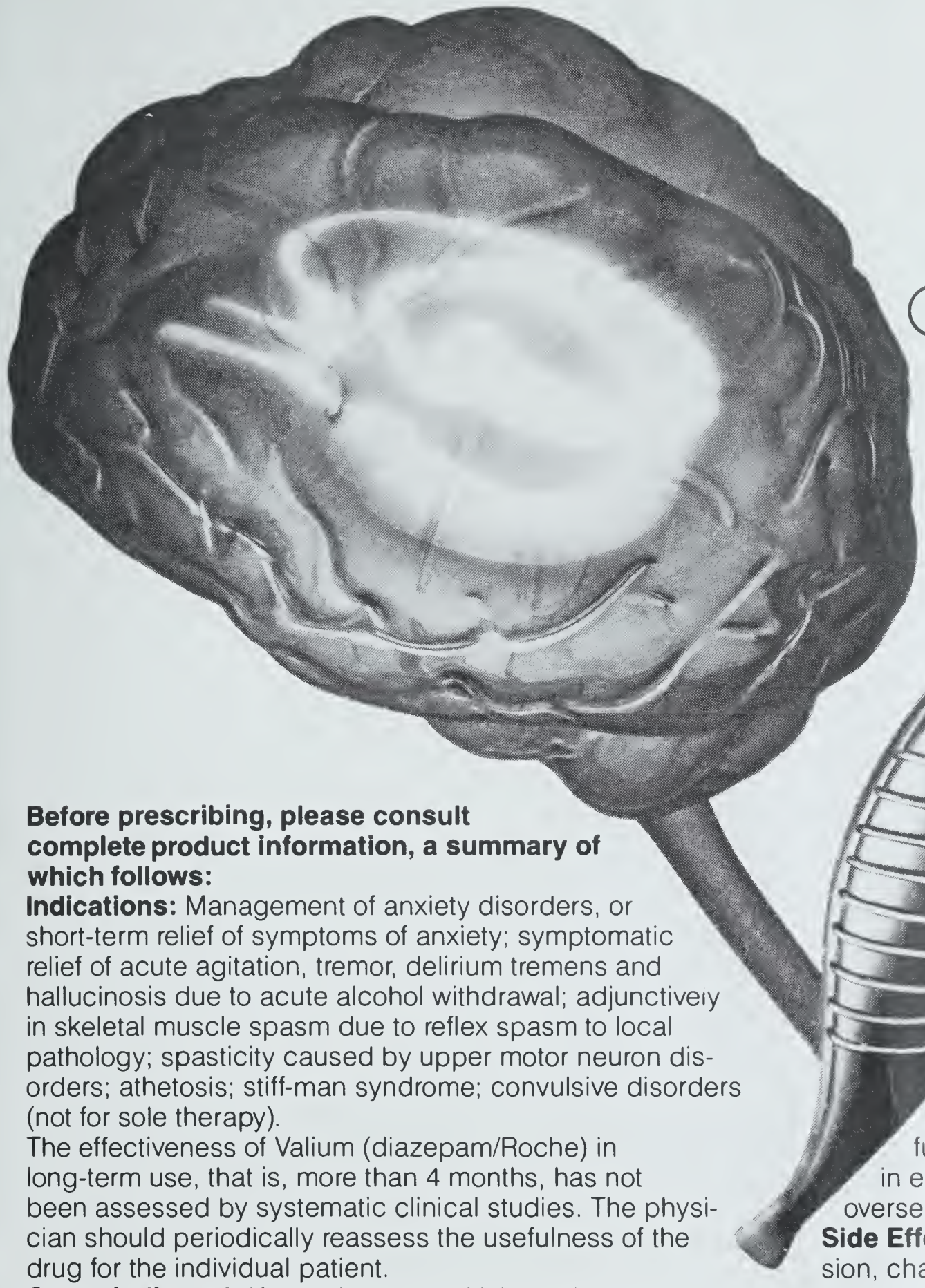
Although there are no guaranteed methods of stretching the years of your life, there are some things you can do to increase your chances of living longer. I know you as a physician are already very knowledgeable in this area, but I also know you as a husband or loved one may not be practicing what you are preaching.

Isn't it just as important for you to do these things as it is for that busy, business executive patient of yours? Your wife and loved ones think so and so should you. **Life is for the living! So get with it, shape up for life!** This minute is the beginning of the rest of your life.

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Only Valium® (diazepam/Roche) is indicated in anxiety disorders and as an adjunct in the relief of skeletal muscle spasm

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

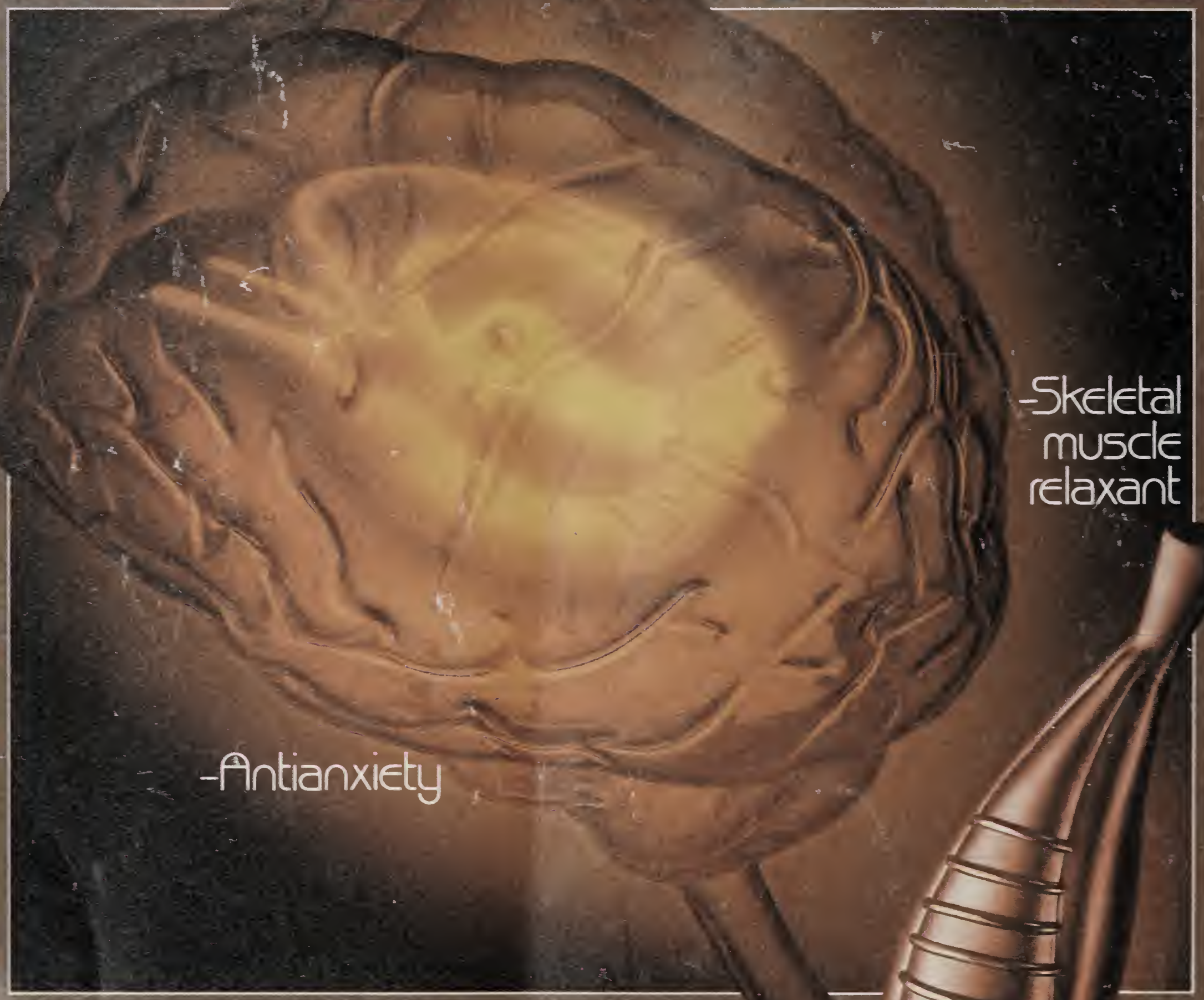
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-Skeletal muscle relaxant

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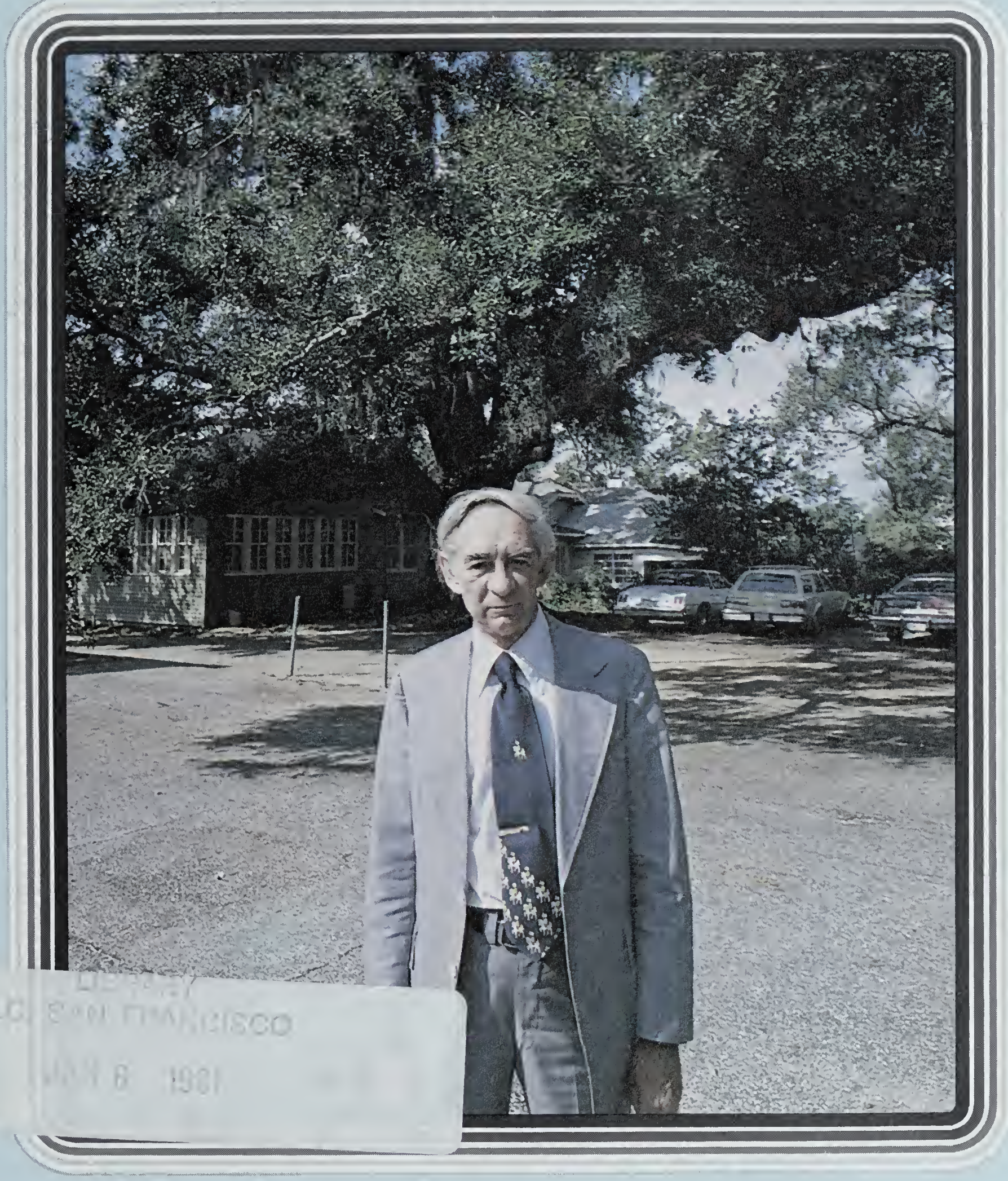
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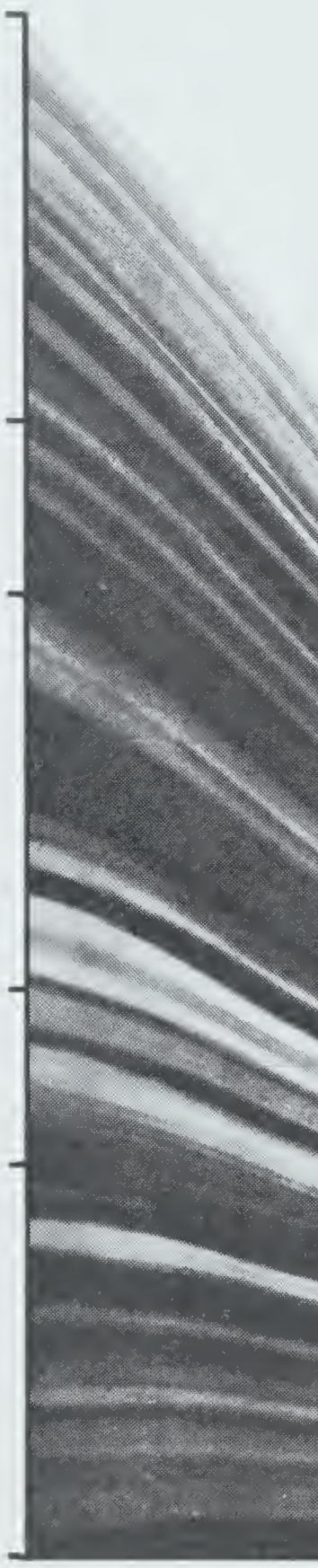
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The Four Horsemen of Amateur Psychiatry, Class of '46

see page 8

half-life

Just one built-in advantage

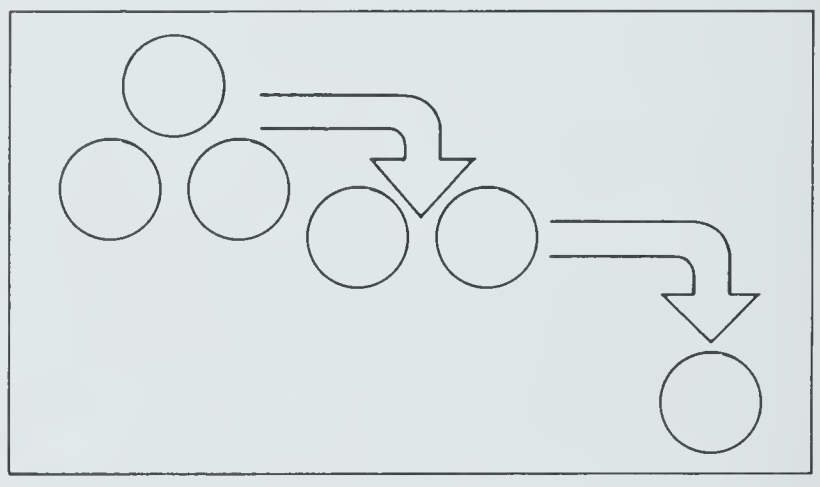


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in the management of symptoms of anxiety

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The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies The physician should periodically reassess the usefulness of the drug for the individual patient
Contraindicated: Known hypersensitivity to the drug Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients Caution against hazardous occupations requiring complete mental alertness When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures Advise against simultaneous ingestion of alcohol and other CNS depressants Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months After extended therapy, gradually taper dosage: Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence
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Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies Observe usual precautions in impaired renal or hepatic function Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy

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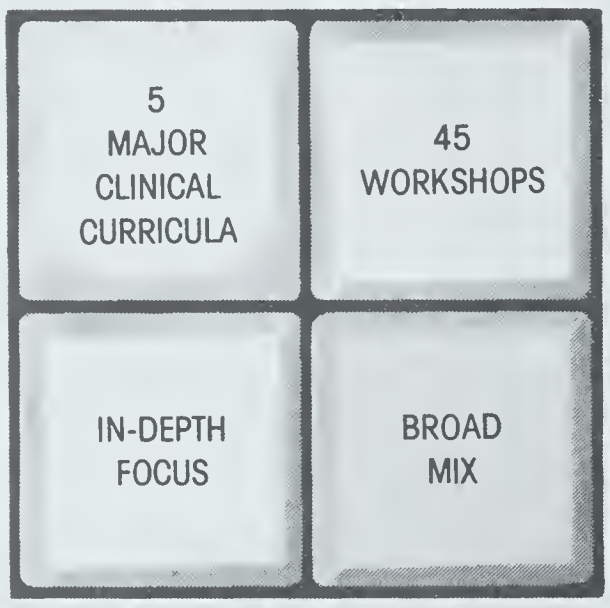
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From the Executive Director

Concurrent Review Snowballs

Certainly the concept of concurrent review has already been accepted by Alabama physicians in their endorsement and creation of Alabama Medical Review, the state's PSRO for federally funded hospitalization.

Now Blue Cross/Blue Shield has entered the field for private patient care. Major industries have begun the practice in some areas. And there is evidence of further expansion of the idea.

Physicians who have tended to look askance at the way some diseases seem to rise and fall in public interest—the disease-of-the-month syndrome—may also detect some element of faddism in the concurrent review trend. Yet, as committed as the profession is to every effort to control costs, scarcely anyone wants to criticize the movement publicly.

Both AMR and BC/BS claim positive results from their separate programs. It logically follows that these successes will attract other sectors that feel their interests are not adequately represented. Already, several major health insurers have sought the right to establish what might be called **prior** concurrent review—mandatory second opinion programs.

Cost control does require a multilateral approach, but if everybody gets into the act, it seems elementary economics that sooner or later concurrent review may itself add to health care costs, the perversity of the medical "marketplace" being what it is.

I have no idea where this is going to end, but down the road somewhere reason may suggest that concurrent review should be centralized under one or two agencies eliminate what could become another example of duplicated costs.

I don't profess to know. The concurrent review experiment—and it can be called little more than that now—will be watched with great interest, but the belief that "any number can play" may prove counterproductive.



S. Lon Conner

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On The Cover

Dr. Claude Brown, Mobile psychiatrist, stands in front of the giant oak behind his Mobile Office. Experts who have studied the tree say it is one of the oldest on the Gulf Coast, putting its age at more than 500 years, meaning it was there before Columbus. As to how it survived last year's hurricane, the obvious answer is that in five centuries it has learned a thing or two.

President's Message



C. A. Lightcap, M. D.
President

Our Own Company

An old story that bears repeating from time to time is the relationship between Mutual Assurance Society of Alabama and MASA.

Legally, there is no connection now, of course. But Mutual Assurance, as most of you know, was forged by MASA out of the malpractice crisis of the 1970s. When major carriers served notice they were pulling out, or refused to write more policies, most Alabama physicians had no place to go.

After many long months of work and study, Mutual Assurance was created to assume the risk that other carriers had decided they didn't want. Physicians own Mutual Assurance; they run it, through their representatives on its committees.

The expertise developed in this highly complex area has been translated into other areas of benefit to Alabama physicians.

Mutual Assurance Agency handles just about any kind of insurance you and your family need. Just recently, for example, they have announced a new life insurance policy for physicians.

These and other benefits, including the Alabama Health Assurance Trust (APHAT), are made possible only because of the group that spreads the risk.

We benefit ourselves and our profession by supporting Mutual Assurance and its many endeavors. They produce an immediate saving for you that is doubly beneficial by turning small profits for the company that help keep malpractice premiums as low as possible.

C.A. Lightcap, MD



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(meprobamate and ethoheptazine citrate with aspirin) Wyeth

EQUAGESIC—Abbreviated Summary

***INDICATIONS:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache.
Final classification of the less-than-effective indications requires further investigation.
The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgement and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentrations in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported; most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and light-headedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication.

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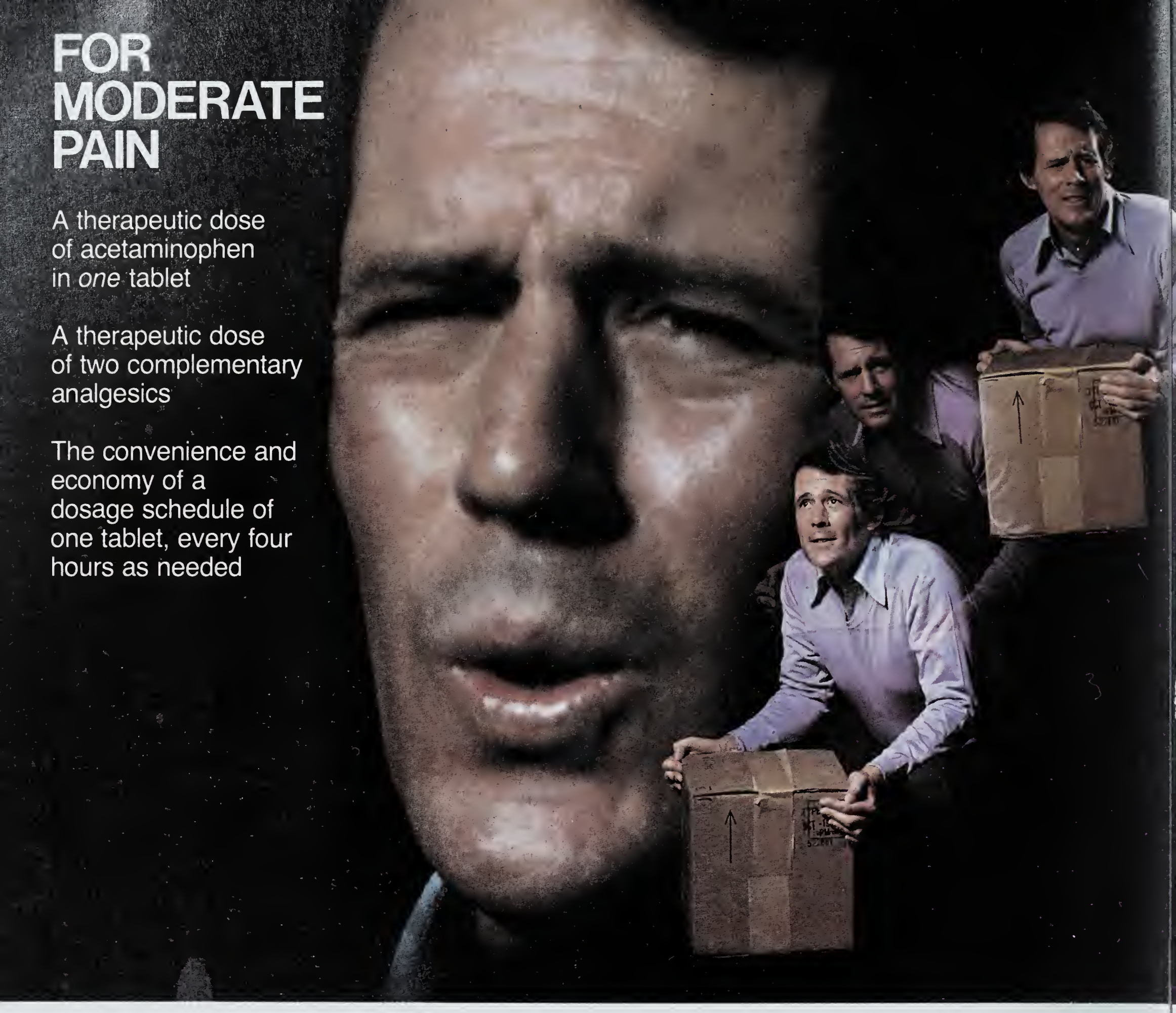
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CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.

PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.

MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered, preferably IV, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.

Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and/or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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The Four Horsemen of Amateur Psychiatry, Class of '46

By William H. McDonald

Claude L. Brown, Jr., M.D., Mobile psychiatrist, admits to some wonder about two major circumstances in his life:

- Whence came his unusual flair for writing, noted by all who know him and by now familiar to *Journal* readers after two recent articles reflecting an uncommon literary style best described as belletristic. He believes he may have been genetically coded somehow to be a writer.
- The peculiar event that happened in Montgomery after World War II that turned him into an amateur psychiatrist with no credentials, and so stimulated him that he went on to make this his specialty, instead of cardiology, an earlier leaning.

Taking the second mystery first: Dr. Brown had just finished his internship at Mobile's old city hospital as World War II was ending, planning to be an internist and probably a cardiologist. He went into the Navy in 1946 to fulfill an obligation, but the Navy had no need for any more doctors. The war was over. He was farmed out to the Veterans Administration to help with the flood of veterans then entering the VA hospitals.

When he arrived at the Montgomery VA hospital, they told him they needed psychiatrists, so he was proclaimed a psychiatrist. Three other physicians were similarly breveted to psychiatric duty in the hospital. Their chief was Robert B. Hagood, M.D., recently of Lowndesboro, Ala., who had a narrow advantage over the other three: he was a little older and had 40 months of service in the South Pacific as a wartime medical officer who had once set up a pscyhiatric ward in the First Field Hospital in the Pacific Theater.

Although no psychiatrist, Dr. Hagood's background impressed the civilian manager of the hospital, Mr. M.E. Head, as eminently qualifying him for chief of the section, which included 60 beds in three wards, plus outpatients.

The others were similarly without benefit of prior professional training. They were simply given battlefield commissions, as it were, told they were psychiatrists and ordered to perform. All had come to the VA from the services, which had no need for them after the war.

There were two rather remarkable results of this curious situation, which could just as easily have turned into a comedy of errors. All of the physicians came to love it. One by one they trooped off for their residencies, following Dr. Hagood, who led the way.

"At first," Dr. Brown recalls, "it was a case of the blind leading the absolute blind, since none of us were any more psychiatrists then we were flag pole sitters. But we did it anyway for two years. Bob Hagood was just out of the Army. He was footloose, didn't know what he wanted to do, but he knew he didn't want to go back to general practice in Lowndesboro, as his father had done."

First To Go

Dr. Hagood was moonlighting in the VA hospital at the time, as he explained by phone when reached for comment in Chattanooga. Fresh out of the Army, he had entered practice with his father in Lowndesboro, near Montgomery, but felt that there must be something more he wanted to do.

Dr. Hagood decided that he really liked his role as chief psychiatrist and said goodbye as he set out for Topeka, Kansas, and Menninger's to learn the specialty that the Army and the Veterans Administration had chosen for him.

Three of the others in Hagood's Irregulars were soon to follow his lead, Dr. Brown among them. Dr. Hagood recalled from his Chattanooga office: "We regrouped in Topeka."

The others were John Durr Elmore, M.D., who practices in Birmingham; and Harry Brunt, M.D., the only northerner in the group, who returned to his native New Jersey, there to rise quickly to head the state's mental hospital system.

Dr. Elmore recalls that it was Dr. Brunt who fought hardest and protested most about being designated a psychiatrist. He spent most of his time in Montgomery complaining bitterly, Dr. Elmore recalled recently.

Dr. Brunt had managed to be placed on the surgical service until he somehow fell out with the chief of surgery, who dispatched him to psychiatry "as punishment," Dr. Elmore recalls.

Although professing his distaste for psychiatry, Dr. Brunt, surprisingly, followed the others into a psychiatry residency.

Within seven or eight years after completion of it, he had been appointed head of New Jersey's hospital system—a kingly role, Dr. Elmore recalls, remembering a visit he made to Trenton once.

On that occasion, Dr. Brunt had a chauffeured limousine dispatched to pick up his Alabama visitor and even joined him in going to New York, providing the limousine service at state expense for the trip.

"But he was a real whippersnapper when he came to Montgomery," Dr. Elmore recalls.

Dr. Elmore thinks he knows where the writing interest of Dr. Brown first took root:

"Claude was *furtively* writing something there in Montgomery, but he would never show it to us. I think he was writing detective novels."

Dr. Brown, confronted with this accusation, categorically denied it, although agreeing to see the "canard" in print in deference to Dr. Elmore's "deadly suspicions."

Question: Dr. Brown, since you were already functioning as a psychiatrist, and the others as well, didn't you fear you would wreck your amateur status by turning pro?"

Dr. Brown chuckled and agreed that this might have been the case but the Hagood group had simply decided to make honest men of themselves. They had also decided they loved pyschiatry, as all of them still do.

Question: "Dr. Brown, if you had it all to do over again, if you were once again 24 and could pick any specialty you wanted, what would be your first choice?

Dr. Brown:"Psychiatry."

Question: "Your second choice?"

Dr. Brown: "Internal medicine, cardiology."

Classic Pattern

Dr. Brown came by medicine logically, in the fashion of many of his day: his father was a druggist. (The senior Brown is now 85, dines with his son occasionally at their favorite Mobile restaurant, Constantine's, and is alert and happy, Dr. Brown says.)

"The fascinating thing about psychotherapy is that it's like peeling an onion. When you finish one layer there is more onion. You never get through."

When Dr. Hagood left for Menninger's, the civilian head of the VA hospital designated Dr. Brown as the new chief of psychiatry. Dr. Brown:

"We saw a mass of psychopathology. We had no instructions. We were it. And I was chief for a year after Bob left."

Two of Dr. Brown's recent articles in the *Journal* of MASA have been highly praised for their literary qualities as well as the force and vigor of the message.

In the first, he questioned whether "disability" has not now become something of an iotrogenic disease, with physicians declaring people "disabled" who say they are. Thus doctors are making the designation a self-fulfilling prophecy, Dr. Brown suggests, that relegates many thousands of Americans to the slag heap.

His style is lean, spare, seemingly unadorned. Each word is precisely chosen for its mission. Dr. Brown is not at all reluctant to inject literary allusions into his essays. For example, the following passage from his chilling account of 35 murders he had personally investigated as a Mobile psychiatrist, published in the *Journal* for June 1980:

"Although Coleridge showed a lack of psychological insight when he described Iago as the personification of 'motiveless malignancy,' most of the great portrayers of emotions make no such mistake. For instance: Verdi, writing to his librettist concerning Il Trovatore, was at pains to have Acuzena described as non-psychotic. He wished her to be seen as confused at times, troubled greatly in her emotions, but not devoid of judgment.

"And in Othello (where Coleridge missed the point), Shakespeare, with marvelous insight and expressiveness, shows the Moor to retain some judgment even with the tremendous perturbation and ambivalence voiced in his soliloquy just before he murders Desdemona. Criminal behavior, like any other involved behavior, is a final pathway of a constellation of feelings, reactions, attitudes and conflicts rather than the simple mental operation of intending—not that this exists either. . . ."

Question: "Dr. Brown, this section suggests you have been influenced to some degree by observers outside the profession, Shakespeare, for example. Much of your writing is flavored with literary and operatic references. How did you come by this talent?"

Dr. Brown: "I write because I like to write. It is difficult for me **not** to bring such allusions into my writing if they are apropos."

Question: "But you seem unusually gifted. How do you account for this talent?"

Dr. Brown: "Well, I don't think of it as talent, but if I do have something in the nature of what you describe, I have come to believe that *some* of the propensity for *some* art forms is genetic. I see so much of it, I'm inclined to think there must be something to it."

In The Family

Dr. Brown had an uncle who liked to write, including some poetry, two aunts who taught school and loved literature and another aunt who taught history for 50 years and was keen on literature and philosophy.

"My father was a great reader of poetry, although I can't imagine when he ever read since he worked the long hours old druggists did. In my formative years I don't ever recall seeing him reading.

"His father—my grandfather—was a Methodist minister who was said to have been a rather literary man who read a great deal. And just the other day, tracing down some geneology, I ran into a name of a great uncle who had done a great deal of writing, publishing some small things, including his experiences in Mexico before the first world war. I had never heard of him before.

"So I have always been interested in language. Where it comes from I don't know."

Question: "But haven't you just renewed the old argument of heredity vs. environment? After all, these people you describe may have been part of your genetic heritage, but they were also your environment, weren't they? You learned from them, and were inspired by them. Is it really genetic, is it environmental; is it both; or neither?"

Dr. Brown, chuckling: "Of course, I don't know. But at least it's true that some people like words, like the sounds of words, and like their connotative effect. That's true. Where it comes from I don't know, but I suspect it's multiply determined. Freud's letters were marvels of writing skill. He was considered a master prose writer and certainly one of the world's best essayists. . ."

Question: "Do you consider yourself a Freudian, Dr. Brown?"

Dr. Brown: "Pretty Much. Yes. Pretty much."

Question: "Among the dominant schools of psychiatry today, what percentage would characterize themselves as Freudians?"

Dr. Brown: "I have no idea. Twenty or thirty per cent maybe. But in the theory of the pathogenesis of symptoms, no psychiatrist would deny the importance of Freud. You get a lot of differences in therapy, but still and all, even in therapy, undergirding most therapeutic systems will be the dynamic ideas of pscyhosexual conflicts, aberrations, and so on."

Question: "Back to the discussion of innate talents and propensities, which interests me and obviously does you. Jung, I believe, wrote about something he called the philogenetic storehouse, wherein certain occupational propensities seem to be inherited. Is that so?"

Dr. Brown: "Jung also wrote of art archetypes being passed down. He is interesting to read but much of what he wrote has little applicability today. . . ."

Question: There seem to be a lot of fads in psychiatry, as well as in what you might call its lunatic fringe—transcendental meditation, primal screams, encounter groups, Oriental mysticism, all that. What does it mean?"

Dr. Brown: "Psychotherapy is on some kind of continuum from the purely supportive to the classically analytical, with the smallest gradations in between. Of course, you have all the therapeutic fads that come and go. A lot of it has some basis in something that's useful or viable but so much of it is claptrap."

Question: "Does it complicate your work if a patient tries some of these fads, this claptrap?"

Answer: "Yes and I think it's the physician's duty to tell the patient it's claptrap. I do that, but I have a friend who thinks that people can try anything they want and 'if they decide they really want to know how the mind works come back to me.' I disagree with that. I think that somewhere along the line we really owe the patient a statement of opinion, because otherwise they go through all kinds of faddistic therapies, of whatever denomination, and they spend a lot of money, what is important but not the main thing. The main thing is they are left with a feeling of betrayal. Therefore I tell patients.

"But even the fads are not the worst thing, I think, that is cursing psychiatry now. It's the biological emphasis in our medical schools. Until recently the output of pscyhiatrists had gone up, up, up. Then a couple of years ago the number started going down, down, down. Although there are many factors in this, certainly a major reason is the emphasis on biological stuff, that we've got a pill for every ill, which we all ought to know rarely exists.

"And it most definitely does not exist in something dealing with the complex human personality. There are really only two drugs of limited use in this respect: phenothiazine, which has helped stabilize some psychotic people; and lithium, which has limited but excellent uses for the manic depressives. But other than these, there aren't any drugs that have changed people's lives.

"There are many things going on that I am very skeptical about. The heavy emphasis on medicine I think is bad."

Question: "And what of the recent research into brain chemistry?"

Answer: "I think these are broadly useful concepts. The more we know about something the better off we are. And we are learning more all the time about neurobiology and biochemistry, an endless and complex field.

"But I think the tendency now, and it's a tendency I deplore, is to try to extrapolate results too soon. Out of all this immensely important field, we see something of interest and say therefore we should do this because it's going to change people. I think this tendency is unwise, futile and doesn't work very often."

Question: "Another example, then, of reductionism? Of looking too close and supposing you are seeing the final answer in the smallest particle?"

Answer: "Yes. I think the tendency in psychiatry is an overemphasis on this, with the corresponding deemphasis on understanding the individual. What is important is the understanding of the individual, the therapeutic intervention you do and the relationship with the patient, which is true of all of medicine.

"I am convinced the most important tool most doctors have is themselves, and if you start bypassing that you are off on an unproductive trail. I don't think any school is more guilty than others. I am making a broad criticism of psychiatry."

Dr. Brown is not much smitten by simplistic pronouncements of doom for the nuclear family. He believes all such generalities are false, and that the American family has been in constant transition since the nation was founded:

"If you look at only one small segment without considering the whole, you get a distorted view. You know, you can't put your foot twice in the same stream. The stream is constantly changing. In fact, there are those who say you can't put your foot in it *once,* since the stream changes even as you do it."

Dr. Brown does not often join company with alarmists. He does not think the rise is in drugs by youth means the downfall of the Republic, pointing to the most dangerous

Continued on Page 15

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PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings:).
OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death.
ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure.
DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole
HOW SUPPLIED:
Bottles of 100 Tablets NDC 0524-0058-01
Bottles of 500 Tablets NDC 0524-0058-05
Federal law prohibits dispensing without prescription.

COUGH

RU-TUSS® EXPECTORANT

DESCRIPTION
Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	65.8 mg
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation.
INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis. Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold.
CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.
Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant.
WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effect caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers
PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease Caution should also be used in patients with pulmonary, hepatic or renal insufficiency
ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions.
DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period
Children 6 to 12 years of age: ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period. Children 2 to 6 years of age: ½ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period. Children under 2 years of age: Use as directed by a physician.
HOW SUPPLIED
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JUDGE GORDON'S RULING

The recent ruling by Montgomery Circuit Judge William R. Gordon points up a major break in the traditional regard for the profession of medicine.

Judge Gordon, you may recall, ruled that neither the Alabama statutory law nor the old common law conferred absolute privilege on physicians reviewing the competence or prior performance of other physicians.

While Judge Gordon ruled that the treatment called to question in a malpractice action could be considered privileged, files on the background and professional competency of the defendant physician, as reviewed by the co-defendant hospital through traditional staff procedures, had to be made public. And who knows how long peer review of treatment will remain privileged.

Until recently, it seemed superfluous to hermetically seal professional review by every jot and tittle of the law. Obviously, times have changed and ancient practice and custom, whereunder the profession policed itself, are no longer considered stronger than codified law.

It was precisely this reality, the changing public and judicial attitude toward medicine as a special case, that figured so strongly in the recent revision of the AMA Principles of Medical Ethics.

Evident in Judge Gordon's measured attempt to balance the interests of a litigant against the larger public interest was a new willingness to bring the medical profession into the popular demand for accountability.

This trend has been evident for some time, but rulings such as this served to underscore the unpleasant truth that American physicians are an endangered species. No longer can they take for granted the unique niche occupied by their professional predecessors, secure from intrusions such as this.

To my mind, and I hope to yours, such innovative rulings as this serve to emphasize that organized medicine is no longer a luxury.

It is a necessity, if medicine as we know it is to survive in the last two decades of this century.

S. Lon Conner
Executive Director
MASA

The Four Horseman—

Continued From Page 10

chemical of all in terms of shattered lives, economic loss and crime—alcohol, which has been around creating havoc sometime.

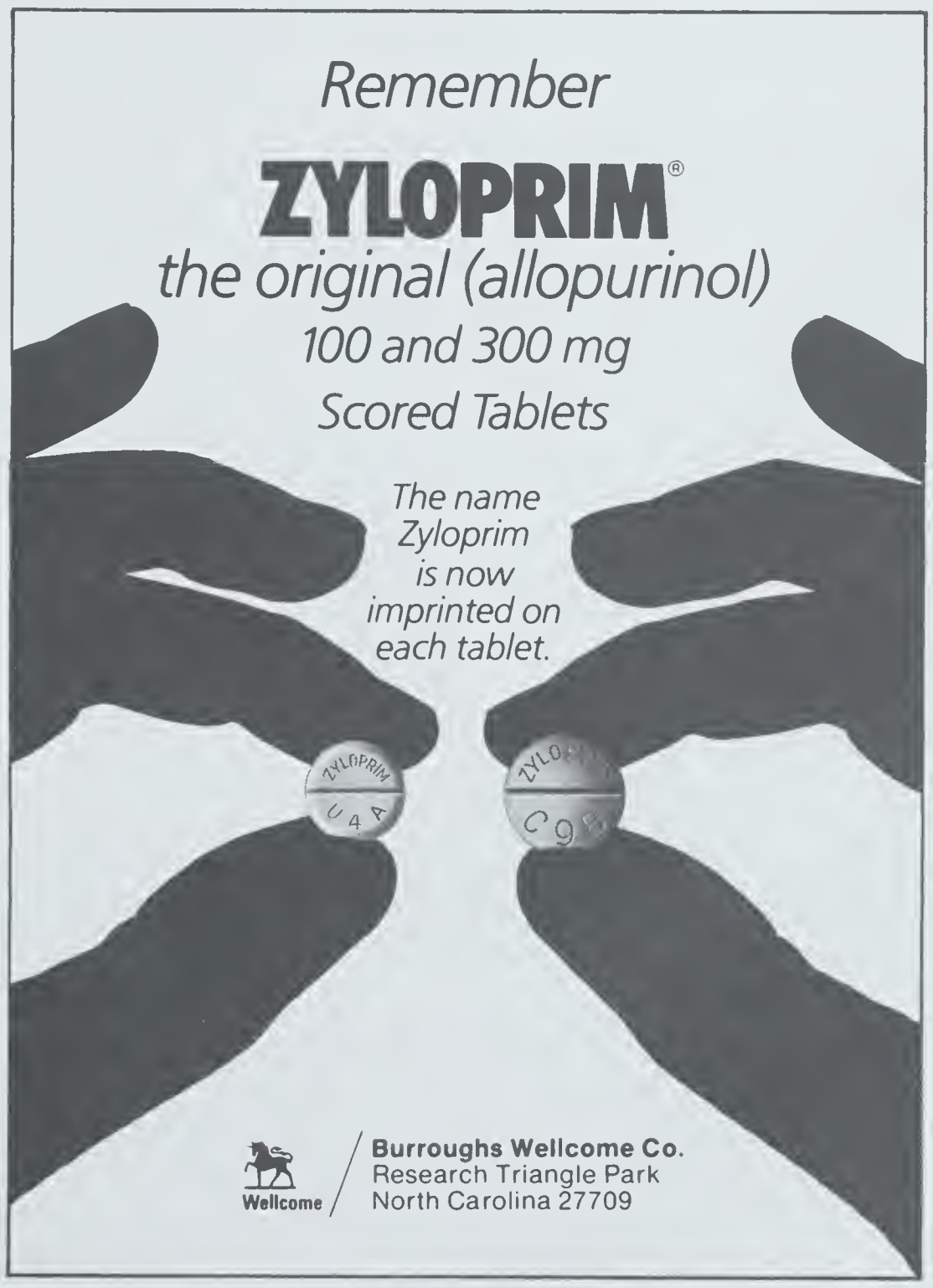
Miscellaneous observations:

- Medical schools erred when they abandoned the rotating internship, which gave doctors a better and more balanced look at their profession and provided them with the necessary exposure on which to base their choice of specialty.
- Television is every bit as bad as alarmists say, and then some. While there are occasional worthwhile things on the tube, "most of it is deleterious."
- He does not use non-physician therapists and is opposed to the practice.

Dr. Brown is an intense, conscientious man, with positive ideas on a great variety of subjects, ideas he sometimes withholds because of his old school manners and courtesy. A superior conversationalist, he is also, by definition, a good listener who often defers to what others say, no matter how fatuous.

Reached in Chattanooga, Dr. Hagood said that what he remembered best about Dr. Brown were his "flair for writing" and his "absolute, unshakable intergrity."

Most men would be happy to be thus remembered by a superior of a generation ago. Not Dr. Brown. He believes that integrity is a constant obligation, not something you pass muster on once and then forget.



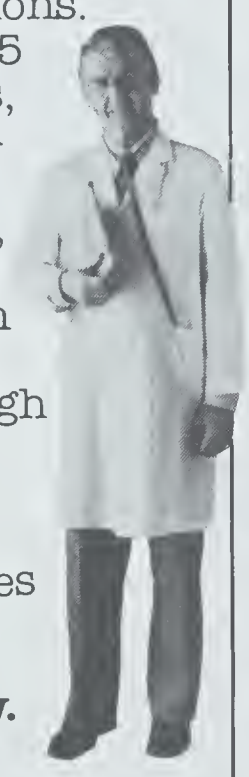
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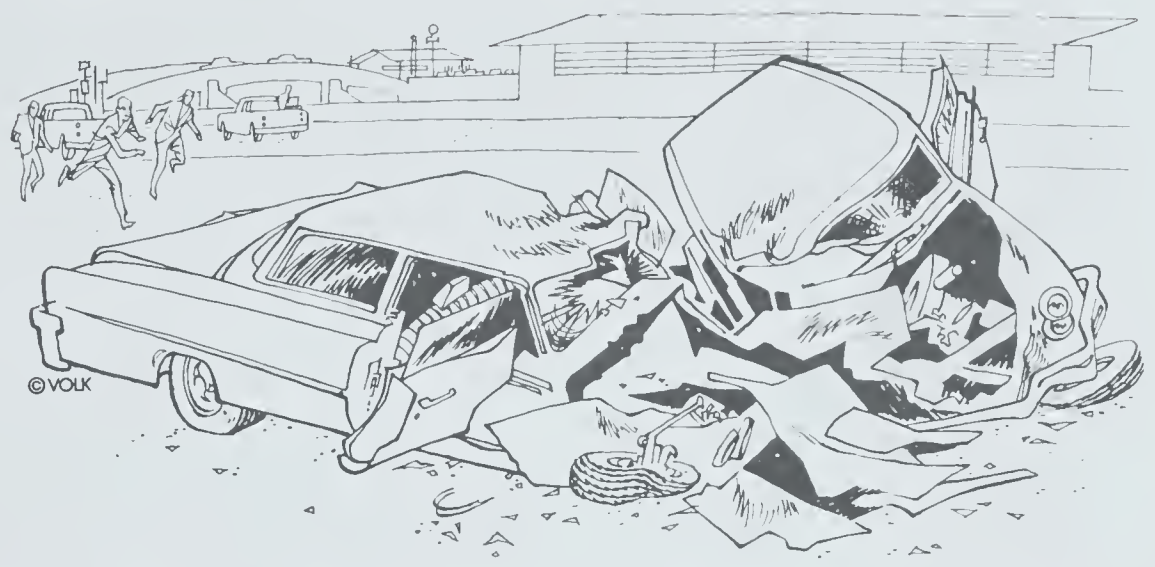
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Making Alabama's Highways Safer

By Robert F. Gloor, M.D., M.P.H.*, Chairman
Major Harold J. Hammond, Chief
Medical Advisory Board
Driver License Division
Department of Public Safety



The new Medical Advisory Board to the Driver License Division of the Department of Public Safety recently held its first meeting in Montgomery.

The enabling Act No. 79-619 was passed by the 1979 legislature and provides for the appointment of a board by the Director of Public Safety from a slate of nominees submitted by the Medical Association of the State of Alabama.

The nine members serve without pay but receive expenses for travel connected with meetings. A previous board served for a number of years but disbanded a few years ago because of lack of legal backing.

The functions of the Board are to:[1]

- Advise the Director on medical criteria relating to the safe operation of motor vehicles;
- Recommend to the Director procedures and guidelines for licensing individuals with physical or mental impairment;
- Initiate the development of medically acceptable report forms;
- Direct research of medically impaired individuals;
- Recommend a training course for driver examiners in the medical aspects of licensure;
- Spearhead efforts to orient the general physician population as well as the public in the medical aspects of driver licensure;
- Assist in the development of regional Driver License Medical Advisory Boards to be constituted similarly to the Board established by this Act; and
- Evaluate individual problem cases that require more than one opinion or that cannot be screened out in light of guidelines established by the Board.

The final decision concerning the denial cancellation, or suspension of a driver's license rests with the Director of Public Safety, the Board serving in an advisory capacity. The Board will provide opinions as requested concerning individual cases, based on records and reports submitted by physicians and departmental personnel.

The Board may request additional information or examination and may interview personally a driver whose license is under review.

The law makes provisions for the confidentiality of information submitted to or by the Board or the Director's office and provides protection from civil or criminal action against the board, departmental personnel and physicians who submit reports or records, opinions or recommendations pursuant to the Act.

Impairments which are subject to review include such problems as epilepsy, mental disorders, alcoholism, certain cases of diabetes and heart disease and visual deficiencies. In fact, any impairment to the safe operation of a motor vehicle, if known to the department is subject to review.

While the law does not provide for compulsory reporting of mental or physical impairments to the safe operation of a motor vehicle by a driver, the effective implementation of the Act requires the continued cooperation of physicians throughout the state in voluntarily reporting such impairments.

Indeed, physicians have been held liable for not reporting impairments which resulted in automobile accidents.[2]

In addition, physicians should be explicit in describing the impairments of drivers whose licenses are under review so that the rights of both the driver and the public at large may be protected. The prompt response to requests for information will help avoid delay in decisions concerning the important privilege of driving a motor vehicle.

During a recent year, over 1,600 licenses were reviewed, with 7% being denied, suspended or cancelled. Most of these were handled by departmental personnel using guidelines, approximately 3% being reviewed by the earlier board.

REFERENCES

1. ACT NO. 79-619, Approved by the Legislature of Alabama, and the Governor of Alabama, July 30, 1979.
2. The Role of Medical Advisory Boards in Driver Licensing, US Department of Transportation, National Highway Traffic Safety Administration, Washington, DC, March 1977.

*Associate Professor of Community Medicine College of Community Health Sciences University of Alabama, University, AL 35486



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* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
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Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

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As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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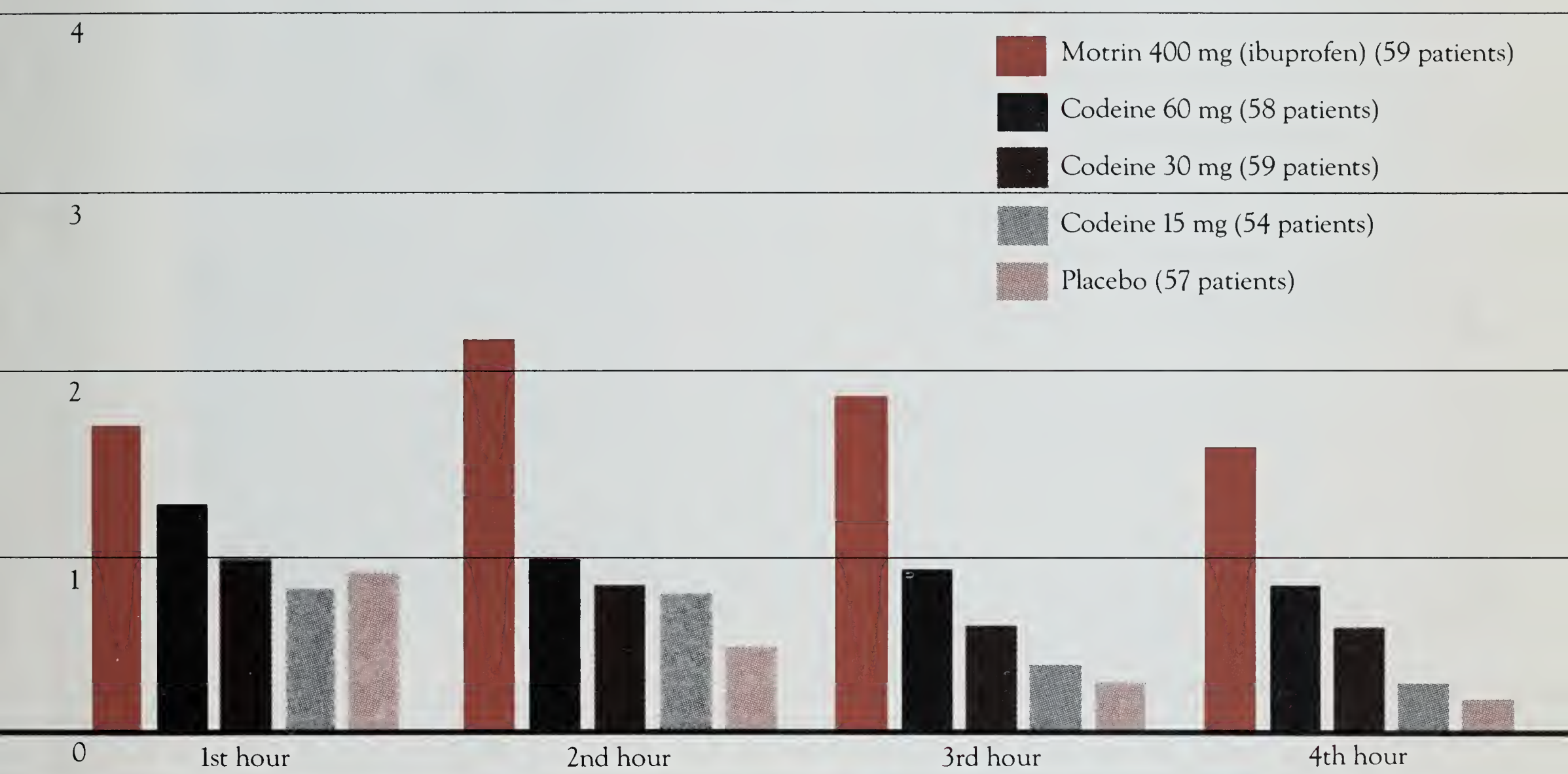
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Motrin was significantly more effective ($p < 0.01$) than codeine 60 mg at the 2-, 3- and 4-hour intervals...significantly more effective ($p < 0.01$) than codeine 30 mg, codeine 15 mg, and placebo at all intervals.

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4 = Excellent relief 3 = Good relief 2 = Fair relief 1 = Poor relief 0 = No relief



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Please turn the page for a brief summary of prescribing information.

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Motrin® (ibuprofen) now proved an effective analgesic for mild to moderate pain

Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin* used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy or by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400 or 600 mg t.i.d. or q.i.d.
Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Do not exceed 2400 mg per day.

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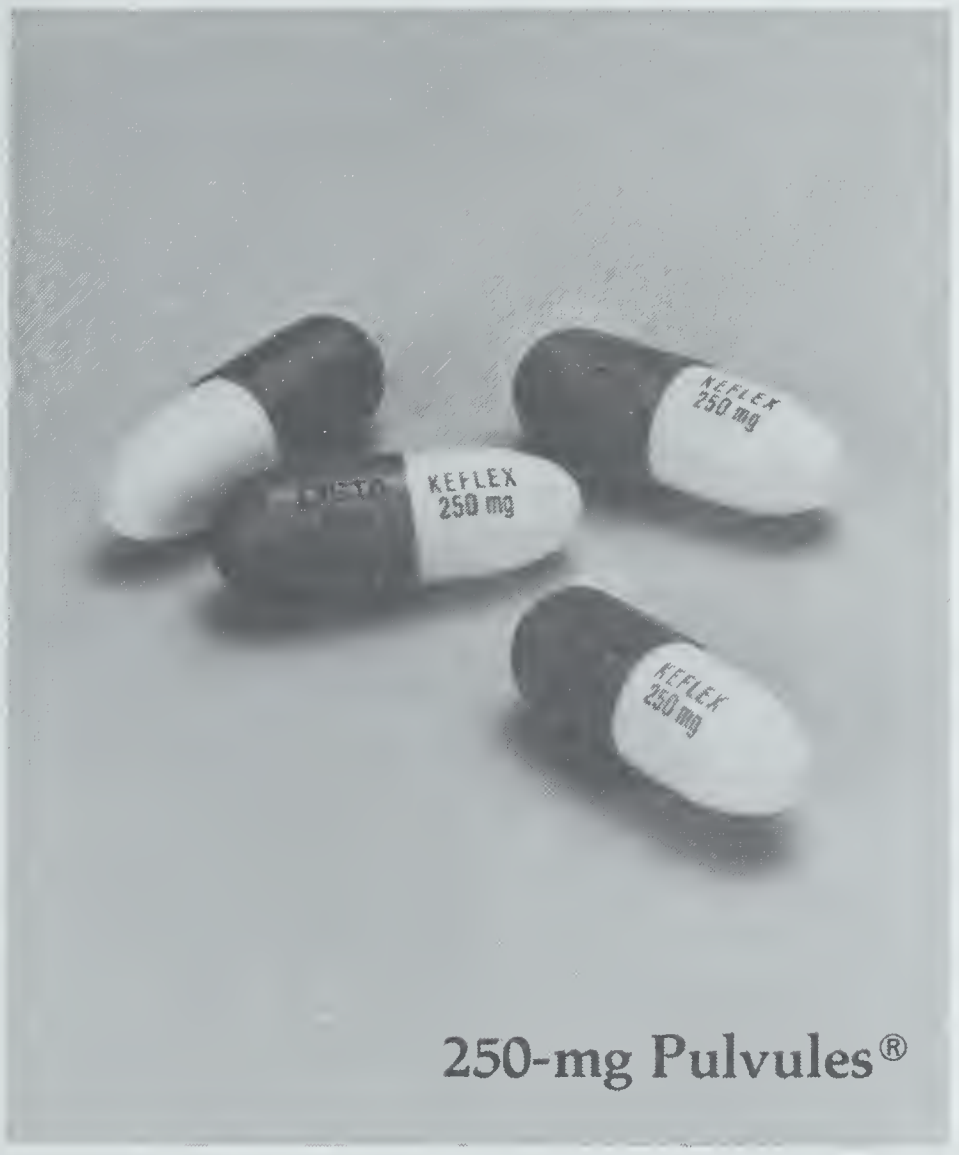
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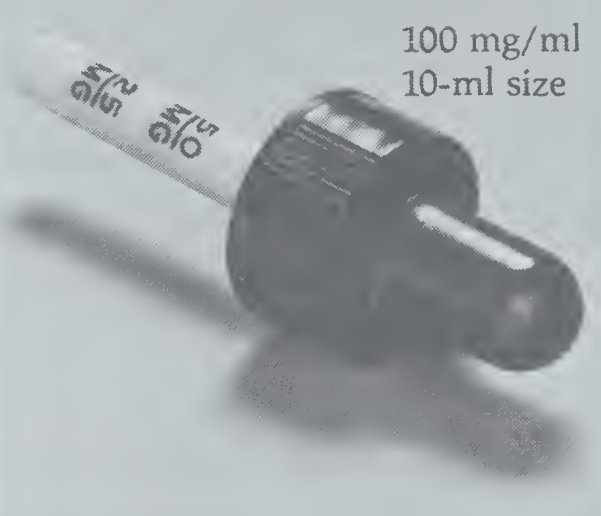
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FIBRODYSPLASIA OSSIFICANS PROGRESSIVA

(MYOSITIS OSSIFICANS PROGRESSIVA)

A Case Report With Some Unusual Clinical Features

John T. Morris, M.D.

Cullman, Alabama

Affiliates:

1) Chairman of the Department of Medicine, Cullman Doctors Hospital.
2) Medical Director, Cullman Health Care Center.
3) Member (Formerly Chairman) of the Department of Medicine, Cullman Medical Center.

John T. Morris, M.D.
203 2nd Avenue, S.E.
Cullman, Alabama 35055

SUMMARY

This case of FOP occurred in a family setting suggestive of genetic mutations on the father's side. The type of microdactyly illustrated by this patient is pathognomonic of FOP. We think that an exacerbation occurring in a body region slows bone growth in this region, thus causing short thumbs, short great toes, and in our patient, a short right humerus. FOP is, basically, a derangement of the fibrocyte, whereby, they proliferate in an uncontrolled manner (like cancer cells). They, then, become bone forming cells and this is the ossifying dysplasia.

Treatment: surgery is contraindicated. No specific medical treatment is indicated.[5,6] Absolute honesty to patient and family is mandatory. Good nursing care helps, but the patients can do most for themselves once they understand that their disease is one of locomotion and not of mentation. Our patient has found fulfillment in her profession as a novelist, historian, and journalist.

Fortunately uncommon, fibrodysplasia ossificans progressiva (FOP) is a disease of vague etiology and rampant clinical course. Guy Patin in 1692 first described a patient with this condition. Von Dusch in 1868 gave it the name myositis ossificans progressiva.[1] Helferich in 1879 described the microdactyly. Rosenstirn studied 118 cases, added one of his own and made many of the observations which have clarified the clinical nature of this illness.[2]

Rollenston in 1901 first expressed the opinion that FOP was a disease of the mesoblast. More recent writers have confirmed that the primary change is in connective tissue and the muscle changes are secondary to this. Therefore, McKussick favors the name fibrodysplasia ossificans progressiva as suggested by Bauer and Bode.[2]

CLINICAL FEATURES

The onset of FOP may be in utero or soon postnatally. The usual onset is before age 10. It rarely first occurs after age 20.

Typically: localized swellings appear in the neck or back. They may be tender and hot, and may be preceded by injury. Some of the swellings are cystic and fluctuate. Some contain blood. The disease may resemble acute rheumatic fever. Wryneck is a frequent, presenting complaint. The muscles of mastication may become involved. Organs that do not become involved are the tongue, larynx, diaphragm, heart, and sphincter muscles. Abdominal and perineal wall muscles and the eye muscles are usually spared.

A few days after the onset of an attack, the swellings disappear and a doughy consistency replaces them. Later, hard bone appears in the tissue replacing tendons, fasciae, ligaments, and aponeuroses. Eventually, the spine becomes completely rigid.

With light microscopy the tissue frequently is indistinquishable from osteogenic sarcoma.[4] (An intriguing thought is that FOP is a peculiar type of osteogenic sarcoma that heals itself by becoming incased in bone.)

The disease exacerbates, consolidates, and ossifies. It may go into a remission lasting several years. The patient may live a very long time and have many exacerbations, each adding new, extra-skeletal bone which bridges across joints, causes exostoses, and incapacitates the patient.

There is much evidence to support the belief that FOP is an autosomal, dominant, genetic syndrome with most cases resulting from new mutations.[2] Most patients are born with a peculiar microdactyly which, if present, is absolutely pathognomonic of FOP. If absent, the diagnosis is suspect. Great toes are nearly always shortened, but there is a hallux valgus deformity which may be more impressive to the observer than the short toes. The next most frequent sign is shortening of the thumb. All fingers and toes may be shortened due to smaller or absent phalangeal bones, rather than shortened metatarsals or metacarpals. Synostoses are frequent and clinodactyly of the fifth fingers may be present.[2]

Other clinical changes are: abnormally broad, femoral necks and large epiphyseal centers in young children.

CASE PRESENTATION

This patient is a highly intelligent, 44 year old, Caucasian female, free-lance journalist who is the author of three books, has written a syndicated newspaper column and is a member of the Alabama Writers Conclave. She relates her history as follows:

"In 1957, after thirteen years of enslavement by an unknown paralyzing disease, I was admitted to the National Institutes of Health. Here, the diagnosis of myositis ossificans progressiva was made and treatment undertaken.

Over a period of eighteen weeks, treatment at NIH consisted of metabolic diet, a conbination of steroids, and surgery carried out simultaneously. A brief excerpt from a summary of proceedings and results compiled by Edward Bigelieri, M.D. is as follows:

'No abnormality of calcium or phosphorus metabolism was discovered. The increased range of motion gained after two operations on the right shoulder was lost in only a matter of days despite physiotherapy. This immobilization seemed to be unaffected by the steroid dosage. No movement was ever gained in the left arm. New bone was seen by x-ray usually within two or three weeks after surgery.'

I was dismissed without medication. Except for pain relieving sedatives taken during active attacks, I have received no further treatment.

My first attack of MOP came in November 1943, four months after a mastoidectomy in the right ear. The following table briefly summarizes my bouts with MOP from the date of onset in 1943 until the last attack in 1974

11/43 AGE: 7 years.
EXACERBATION: Neck; spine; shoulder girdle, bilaterally; right elbow.
PRESENTATION: Small, painless lump at base of spine.
COMPLICATIONS: Permanent immobility of neck, spine and shoulders, bilaterally. Unable to extend right elbow fully, but retained enough flexion to touch chin with forefinger. This arm is the only portion of my body never to have suffered subsequent attacks. The right hand is the only portion never to have been affected at all.
PAIN DURATION ACTIVE STAGE: None; swelling disappeared in one week.



Figure 1. Radiographs of right and left elbow showing massive extraskeletal bond formation about the left elbow as a result of numerous assaults of FOP. The right elbow is relatively normal. It has had only one attack.

5/50 AGE: 14
EXACERBATION: Left arm, shoulder to elbow.
PRESENTATION: Firm swelling. Moderate pain.
COMPLICATIONS: Unable to extend arm fully, although some flexion remained.
PAIN DURATION ACTIVE STAGE: Three weeks.

1/54 AGE: 17
EXACERBATION: Right Leg.
PRESENTATION: Firm swelling. Severe pain.
COMPLICATIONS: Hip, knee, and ankle immobilized in extended position.
PAIN DURATION ACTIVE STAGE: One year.

4/54 AGE: 18
EXACERBATION: Left leg.
PRESENTATION: Firm swelling. Severe pain.
COMPLICATIONS: Immobility of hip and knee in permanently flexed position.
PAIN DURATION ACTIVE STAGE: One year. Confined permanently to bed.

4/57 AGE: 21
EXACERBATION: Left elbow.
PRESENTATION: Firm swelling. Severe pain.
COMPLICATIONS: Additional loss of flexion.
PAIN DURATION ACTIVE STAGE: Three weeks.

10/60 AGE: 24
EXACERBATION: Jaws, bilaterally.
PRESENTATION: Slight swelling. Intractable pain.
COMPLICATIONS: Mouth closed, leaving 4mm space between teeth.
PAIN DURATION ACTIVE STAGE: Six weeks.

6/63 AGE: 27
EXACERBATION: Left arm, shoulders to fingers.
PRESENTATION: Firm swelling. Intense pain.
COMPLICATIONS: Elbow and wrist further immobilized. First and second joints remain flexible. Grip is firm, bilaterally.
PAIN DURATION ACTIVE STAGE: Three weeks.

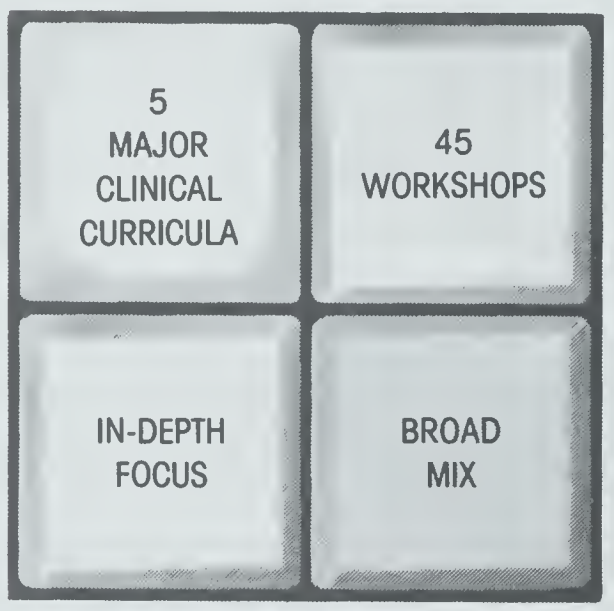
12/70 AGE: 34
EXACERBATION: Jaws, bilaterally.
PRESENTATION: Intense pain.
COMPLICATIONS: Mouth closed completely.
PAIN DURATION ACTIVE STAGE: Three weeks.

5/73 AGE: 37
EXACERBATION: Hip and knee.
PRESENTATION: Spasmodic pain.

Continued on Page 32

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7:00 p.m.
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8:00 a.m.
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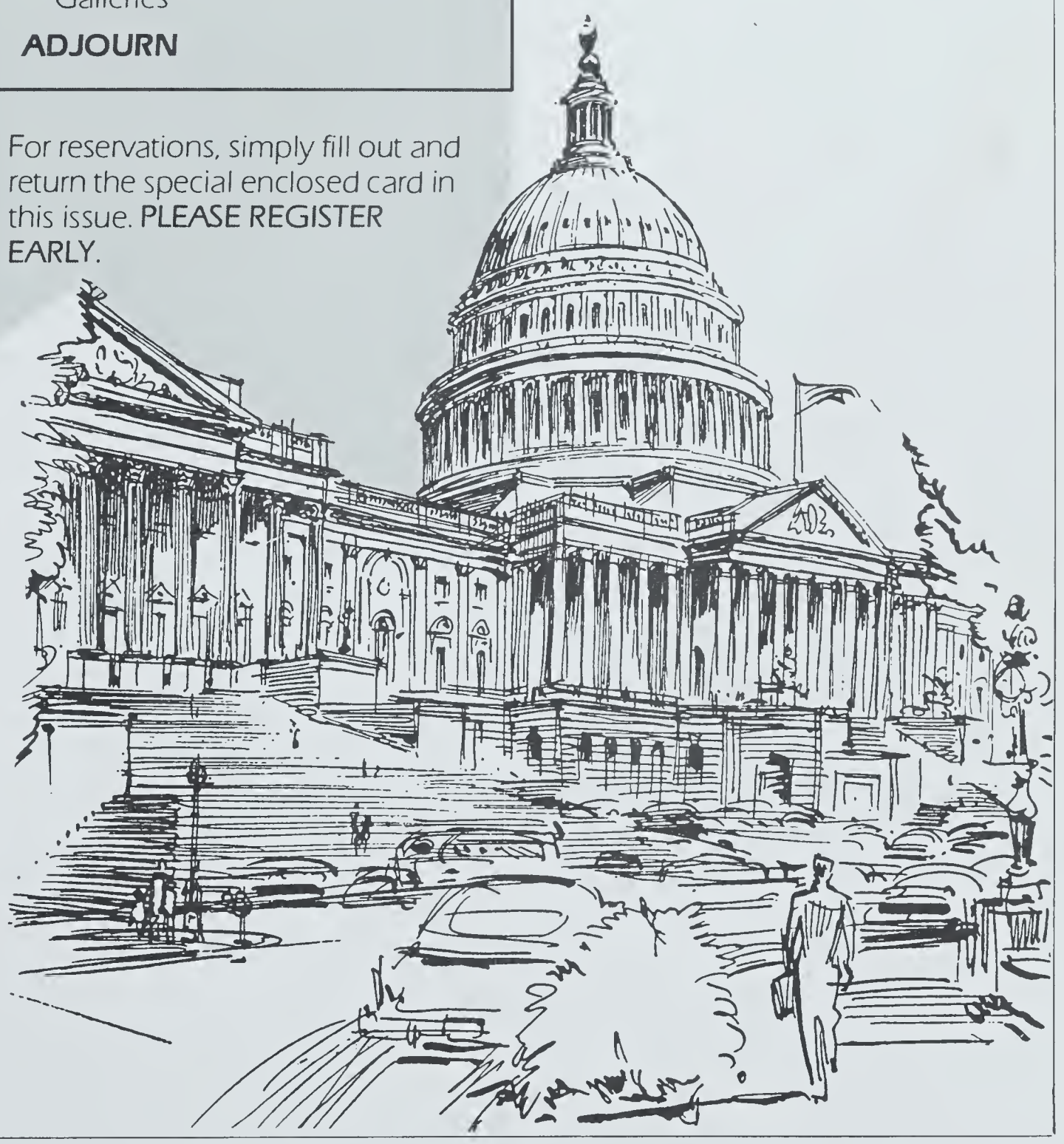
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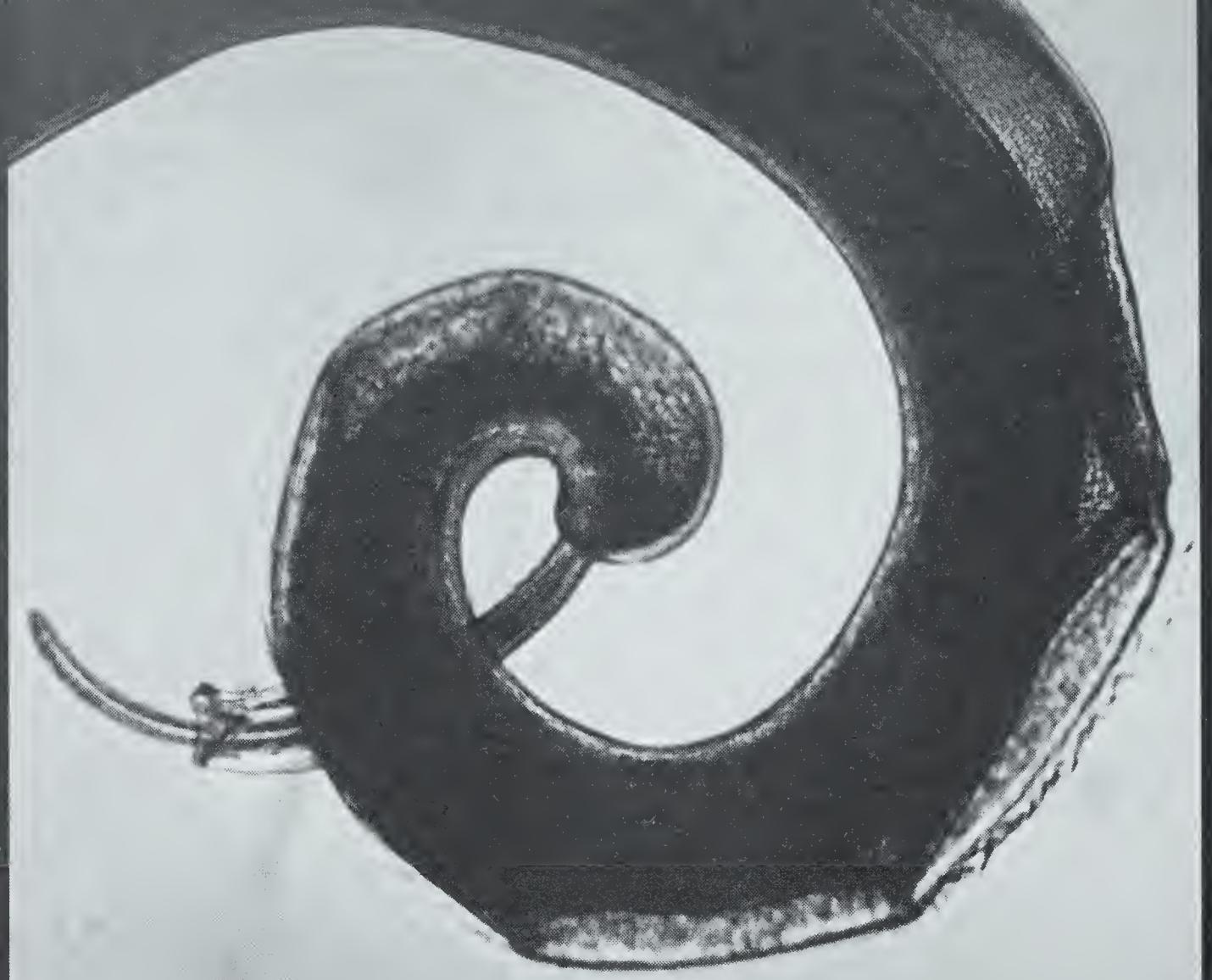
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Dr. Wiley In Perspective

In "The Pellagra Story in the U.S." (*Journal,* March 1980), Dr. Carmichael is to be commended for underscoring the important role Dr. George H. Searcy, Assistant Superintendent of Bryce Hospital , played in the discovery of pellagra in this country, as well as Searcy's experimental production of this disease at Mount Vernon Hospital in 1906.

The fact that Searcy was not given sufficient credit for his important discoveries was most unfortunate. Even after Goldberger's reports on pellagra were disseminated nine years later, Goldberger "was immediately denounced by southern politicians, newspapers and physicians for casting aspersions upon their region."[1] Even as late as 1918 the Pellagra Commission of the National Medical Association firmly declared that pellagra was a communicable disease which resulted from improper sanitation.[1]

The role of Dr. Harvey W. Wiley in the famous Coca-Cola Trial of 1911, as described by Dr. Carmichael, must be viewed in proper perspective. Wiley, chief chemist of the U.S. Department of Agriculture and acknowledged as the central figure in the fight for passage of the federal Pure Food and Drugs Act of 1906, had long harbored deep misgivings about Coca-Cola because of its caffeine content.

Wiley didn't object to caffeine when it was taken with the full knowledge and consent of the user, as with coffee and cocoa. He personally felt that its presence in soft drinks was not ethical, especially since children were heavy users of these beverages.[2] Coca-Cola, America's national drink, also had contained cocaine until 1903, when the manufacturers were forced to use decocainized coca leaves.[3] The beverage was widely proclaimed to be "a brain tonic and cure for all nervous affections, sick headache, neuralgia, hysteria, and melancholy, etc."[4]

As Dr. Carmichael noted, Judge E.T. Sanford directed the jury to find for Coca-Cola Company on the grounds that caffeine wasn't, within the meaning of the law, an added poisonous or deleterious substance nor was the beverage misbranded. What was not mentioned in the article, however, was that the Supreme Court reversed Sanford's decision in 1916 and remanded to a lower court the question of caffeine's effects on health.

At that point, the Coca-Cola Company altered its formula and decreased materially the amount of caffeine in its product.[2] Wiley's contributions towards improving the health of the nation cannot be overestimated.[5] Even today his concerns about caffeine are being echoed by others.[6,7,8]

Since the publication of Dr. Carmichael's thought-provoking article, the FDA has removed caffeine from its "generally regarded as safe" list.[9]

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College of Community Health Services
University, Alabama

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**PATIENT CARE Magazine—Outlook 1977, "Face-Off: Cost Containment vs. Chaos," January 1, 1977.*

Lyle CB, et al. "Practice habits in a group of eight internists," ANNALS OF INTERNAL MEDICINE 84 (May 1976), 594-601.

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Fibrodysplasia Ossificans—

Continued From Page 26

COMPLICATIONS: Additional fixation. No longer able to sit in chair.
PAIN DURATION ACTIVE STAGE: Two years.

2/74 AGE: 38
EXACERBATION: Left elbow and arm.
PRESENTATION: Slight swelling. Intense pain.
COMPLICATIONS: Additional rigidity of elbow and wrist.
PAIN DURATION ACTIVE STAGE: Three weeks.

Fibroid tumors necessitated a hysterectomy in December of 1977 at the age of 41. A biopsy of the rectus muscle at this time showed no evidence of MOP in the internal organs. In March of 1978 I was hospitalized for two weeks with acute sialadenitis of the submaxillary glands accompanied by much difficulty in breathing, swallowing and talking. In March of 1980 I was hospitalized for one week with pharyngitis accompanied by high temperature and difficulty in swallowing. Treatment in both instances was by antibiotics administered intravenously.



Figure 2. Right and left hands with corresponding radiographs showing the microdactyly and monometacarpophalanx. Note the difference in the atrophic skin of the paralyzed left hand and the wrinkled appearance of the working, right hand.

During adolescence my education through the high school level in public school was unmarred by frequent or extended absences. In adulthood constructive self-therapy achieved through journalistic pursuits has been richly conducive to emotional adjustment and physical well-being.

Over the years, my general health has remained remarkably stable. I have no organic complications or chronic problems except for a mild case of psoriasis. Lying in a constant supine position has posed no difficulty with circulation or pressure sores. I have no difficulty with breathing or swallowing. Food, blended perfectly smooth to creamy consistency, is taken through a tiny gap between upper and lower molars on the right side. My weight and blood pressure are normal. I take no type of medication."

Physically, the patient appears comfortable. She has normal hair pattern. She wears a hearing aide and with the help of this, she hears very well. She cannot open or close her mouth and the teeth remain approximately 4-5mm separated. The facial skin is soft, but the under structures are firm and smooth. The lips are freely movable and the patient is able to talk and swallow satisfactorily. However, she has chewed nothing for over 20 years.

The patient is completely paralyzed and rigid. All the joints are immovable except the right elbow, wrist, hand, and fingers, and the left fingers. Heart and lungs are normal. The patient breaths with the diaphragm. The bony thorax is rigid. The abdominal wall appears to be normal. The skin appears somewhat atrophic over all the involved areas. There are some acne lesions on the face, but no wrinkles.

There are many exostoses felt under the skin near the bones of the back, knees, ankles, and elbows. Special examination of the extremities reveals both thumbs to be completely stiffened. The other four fingers of each hand function very satisfactorily. The patient can write and type with the right hand. The hands have not met for the past 20 years, but she learned to do needle point and feed herself in spite of this. The feet are completely ankylosed at the ankles and the only movements are in the three middle toes, bilaterally.

Laboratory studies: The patient's CBC, urinalysis, and chemistry profile, including alkaline phosphatase, are within normal limits. The bone scan, however, showed some increased activity in the shoulder regions. X-ray examination reveals the vertebrae to be completely ankylosed and shows trabecular bone across the intervertebral joints. There are numerous osseous bars connecting ribs and in spaces adjacent to the vertebrae. X-rays of both shoulders reveal large, spiraling bars extending from the humerus across the axilla to the ribs and to the scapulae. There are large, bony ribbons extending from the humerus down into the arm in the

inner aspect. There is marked osteoporosis of the head of the humerus, bilaterally.

X-ray of the pelvis shows large, osseous bars in the para-vertebral spaces, some extending from the iliac crest upward. There are large, spiraling, osseous bands extending from the femur up and joining to the pelvis and the wing of the ileum. Some extend posteriorly and some anteriorly to the adjacent pelvic bones. There is one large rod extending down parellel to the femur in the left thigh and several bars extending down along the right thigh within the muscles.

X-ray of the right knee is interesting in that, in addition to the extra osseous bone formation, there is marked ossification within the joint and this appears to be in the internal cruciate ligaments, and confirms that this process is one of connective tissue rather than muscle, since these ligaments are far separated from any muscle and are completely derived from fibrocytes.

DISCUSSION

This patient has the salient features of fibrodysplasia ossificans progressiva with some unusual features; her family history is unusual in that she has two first cousins on her fathers's side who have juvenile onset cancer. Two second cousins on her father's side had congenital deafness and one who recently died, had multiple congenital anomalies. Her mother was sick during her entire first pregnancy and had a six months miscarriage. Her mother, also, was sick during the entire pregnancy with this patient and she was born two months premature. Her father was age 25 and her mother was age 21 at the time. The patient had the congenital findings in her fingers and toes at birth.

During early childhood, she had almost constant, upper respiratory infections. She had one episode of bronchopneumonia. She had a mastoid operation for apparent mastoid infection four months before her first attack of FOP. The first attack affected the right shoulder, spine, and neck. During the seven year period between the first and second attacks, the left humerus grew faster than the right humerus and the left arm, at the present time, is notably longer from the shoulder to the elbow than is the right. In addition to the numerous exostoses, the patient has developed normal sesamoid bones below the first metacarpals and below the first metatarsals, bilaterally. None of her viscera have been affected by this condition. Her female organs developed normally and she had several large, fibroid tumors develop. After surgical removal, she had no complication or exacerbation of the FOP. It is felt that most of the



Figure 3. Radiographs of the knee showing exostoses and large spur formations and markedly, ossified internal cruciate ligaments.



Figure 4. Radiographs and photograph of the foot showing hallux valgus of great toe, triphalangeal second digit and biphalangeal third, fourth, and fifth digits with clinodactyly. Normally appearing sesamoid bones and swiss-cheese appearance of monophalangeal great toe.

patient's exacerbations have come on during periods of stress and with respiratory infections or during inclement weather. All, except one, exacerbation has come on in winter.

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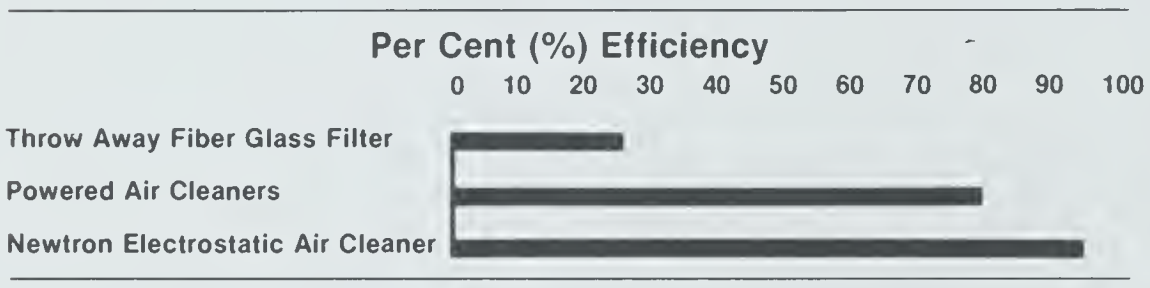
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Environmental Health Administration State
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Records of the Alabama Department of Public Health show that the principal public oyster reefs located in the area of Cedar Point in Mobile Bay have been closed to oyster harvesting for human consumption one or more times 21 of the 28 years since 1952.

The waters have been closed one or more times each year since 1968 because of unacceptable water quality for harvesting oysters. The duration of these closures range from 14 days (1970) to 146 (1973). The average number of days closed per year is 79.

Water quality standards established by the State Board of Health for approved oyster growing waters provide that, "The median fecal coliform value for a sampling station shall not exceed an MPN of 14 per 100 ml. of sample and not more than 10 percent of the samples shall exceed 43 for a 5 tube 3 dilution test."

This standard is the same or equivalent to that applied to seawater samples by all oyster producing states cooperating in the National Shellfish Sanitation Program. When the waters over the oyster beds exceed the bacteria standard described, the State Health Officer publishes and promulgates orders changing the classification of the area to one which prohibits the harvesting of the oysters therefrom for use for human consumption.

The waters over the oyster beds are closed more often during late winter and early spring. Since 1968, the waters have been closed 21 times. Six of the closures were in the month of January, four in February, four in March, five in April, one in September (Hurricane Frederic), and one in December.

Closing the oyster growing waters is correlated directly with seasonal rainfall and the elevated stream flows into Mobile Bay. This causes the normal saline water to be replaced with fresh water. It is termed fresh water because it replaces the saline brackish water, the natural habitat for oysters. As a matter of fact, the water is dirty, red in color and is contaminated with suspended matter, including fecal material capable of supporting the growth of microorganisms, washed from pastures, swamplands, sewage saturated soils and by ditches, streams and the river system entering Mobile Bay.

Some 64 percent of Alabama, as well as portions of Georgia, Mississippi, and Tennessee, or some 44,170 square miles drain into Mobile Bay. The flushing of this vast drainage area, including parts not flushed since the previous spring, overload the dispersal capacity of tidal action and results in the "fresh water" being held in the Bay for extended periods of time.

The oyster, being a sedentary animal, is unable to move out of the contaminated water, must endure whatever the freshet brings for the duration of its changed environment. It is believed that initially and perhaps for several days thereafter, the oyster does not feed, but eventually becomes acclimated to its changed environment, does feed and in the process concentrates matter, including microorganisms in its digestive tract several times that present in the water in which it lives.

The oyster has a history of transmitting diseases and causing illnesses. It is consumed whole and in some instances raw. Much research has been devoted to developing criteria for oyster growing waters that provide a margin of safety for consumers of oysters.

The bacteria standards in use nationally are the results of such scientific research. The oyster is an indicator of the water quality from which it is harvested. That water, at times, is contaminated with harmful microorganisms. Oysters removed from such waters must be considered hazardous to health thus the harvesting of the oysters is prevented by closing the waters to harvesting, periodically.

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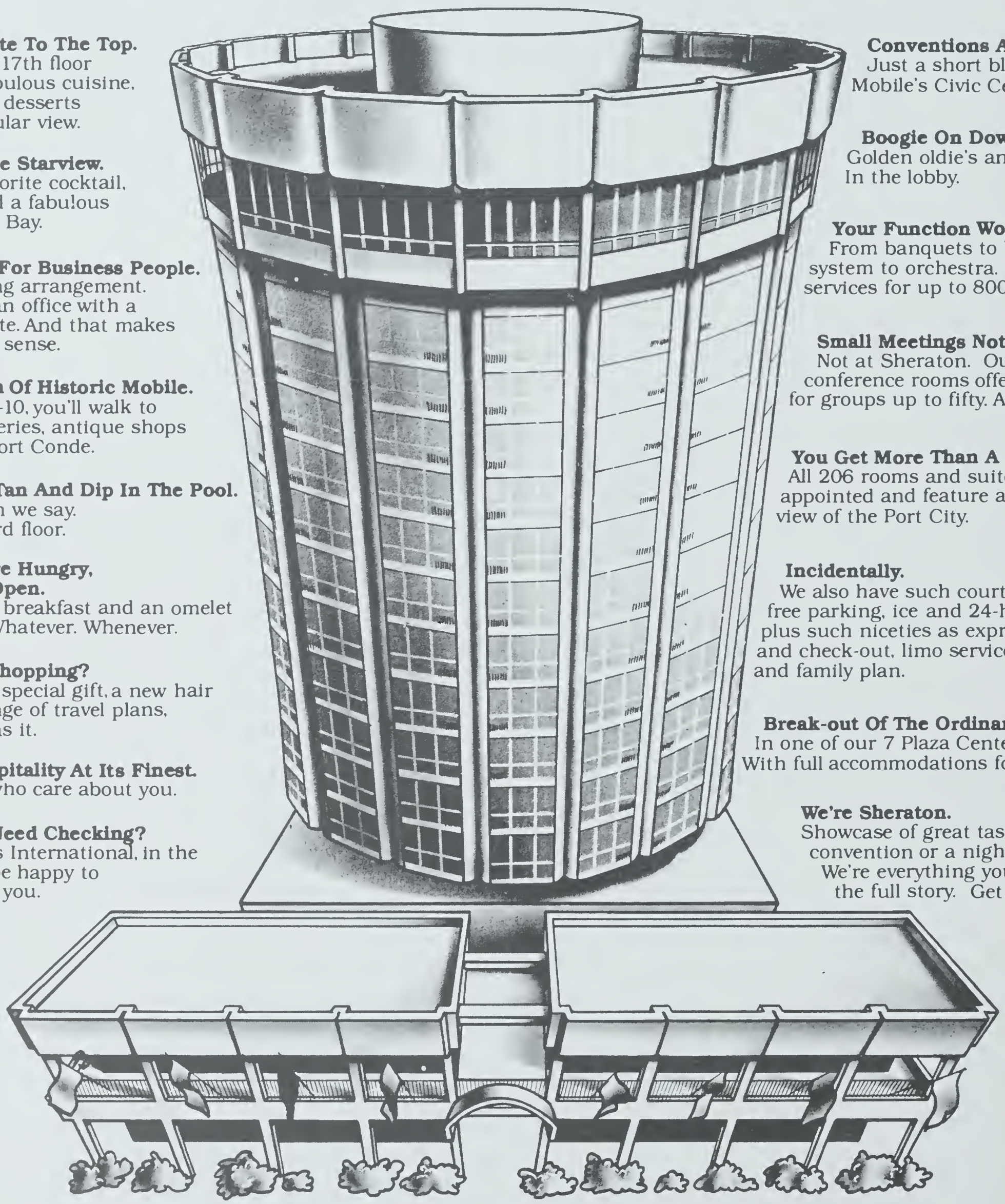
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Examining Health Care Costs

Robert B. Hunter, M.D.
President, AMA

I bring you a plain message. It centers around communication.

By that I mean the kind of communication that involves listening as well as talking. I mean the face-to-face, sit-down-at-the-same-table, honest give-and-take kind of communication between all segments of our society on the urgent health care problems of the day.

And I mean active, as compared to passive, communication. I mean mutual communication that leads to a mutual understanding of the problems, and to mutual commitments in their resolution.

I'm convinced that this kind of communication is absolutely vital to the future of our profession and of our association, and thereby to the future health of the people of this nation.

From within this framework, then, let's examine some of the urgent health care problems of the day. As this audience is well aware, the most visible, the most persistent, and the most difficult-to-deal-with problem is the steady surge in the cost of care. I believe a large part of the difficulty has been created by our society's failure to recognize a single, basic fact.

Since every element of our society has contributed to the cost problem, every element of our society must contribute to its resolution. Unless and until that happens, the various solutions that we undertake are going to be piecemeal, rather than of a piece.

Well, I also happen to believe that it's squarely up to the American Medical Association to exert the leadership necessary to bring together various elements of the health care system—as well as other elements of our society, including government—to fashion comprehensive and cooperative remedies for health care problems, with emphasis on the cost problem.

To show you what I mean, and from the perspective of the problems on the health care table, let's do some talking and some listening to the other elements in our society. When we physicians talk about government's place at this table, we've never been shy about expressing any misgivings that we may have. Very often these misgivings are justified.

Questions For Government

If I were presently talking with members of the Carter Administration, or the Congress, for example, I might remind them of their repeated assurances that in government initiatives to reduce the costs of patient care, there would be no reduction in the quality or sufficiency of that care. And I would ask, why is it, then, that in current federal budget deliberations, there is so much talk about reductions in the funding of federal commitments to improve health services for some segments of the population? If government is sincerely interested in assuring the American people of the future quality of medical education and practice in this country, why is its support of basic and clinical research badly wavering or at least uncertain, and why is its support for medical education apparently about to become minimal or eventually nonexistent, especially since these are the very wellsprings of tomorrow's medical breakthroughs?

There are related questions that could be asked of other elements of our society, including representatives of the insurance industry, and of business and industry in general.

In responding to the waves of enthusiasm now washing around the concept of more competition in the health care market, are provisions being made for rough as well as smooth sailing?

To what degree should a complex, personalized service like health care even be marketed? Are patients really consumers of the product called "health care," with the implicit assumption that this consumption can be increased or decreased at will with little or no consequences for patients?

Can physicians or hospitals call some central health care warehouse and order up a batch of patients with the same sex, size, shape and sensitivity, and with identical or even similar medical problems, and thus make more efficient and productive use of expensive facilities and equipment? Exactly how close a correlation should there be between the utilization and the purchase of medical equipment?

Will those planners and economists who opt for an exact correlation feel the same way when they are the ones admitted to a hospital emergency room with a life-threatening medical problem, only to find a vital piece of equipment missing? To forego such a purchase in business or industry may be sound economics, or may merely mean the loss of an unprofitable order. In

medicine, it may mean unprofessional diagnosis or therapy, and perhaps the loss of life.

There is a single, very basic question that might be asked of the public-at-large. Is there really even a small group of people in this country over the age of 15 who actually don't understand at least the rudiments of personal health promotion, who actually don't know what excessive amounts of tobacco, alcohol, and calories, with little or no exercise, can do to their lives and their longevity?

And aside from periodic warnings to patients, what is the physician's role in this? Should we plead, cajole, coerce or threaten? Should we become paternalistic, or maternalistic? Should we really take on the role of general health counselors, and attempt to advise patients on jobs, sex, marriage, mental health, and the eternal vicissitudes of life in general?

Questions For Physicians

Such are some of the questions that we might, and we have, asked ourselves and the other elements in our society. But if you'll recall, my definition of effective communication involves listening as well as talking. And the people we've been talking to have posed some equally sharp questions for us to answer. The public-at-large has such questions.

American physicians today are superbly educated and trained. And we do have sophisticated, up-to-date equipment and facilities to aid us in the provision of high-quality care. And patients, as well as our larger society, are grateful for the excellence of that care. But to actually deliver this care to the patient necessarily requires concentrating all the technology and personnel in one location.

In the delivery of acute care, this location is almost always a sophisticated medical clinic or community hospital. We physicians see these resources and the obviously complex delivery system as absolute imperatives to the practice of modern medicine. But patients may have a less charitable view, particularly in humanistic terms.

The patient may be successively shifted from generalist to specialist, from office to hospital, from X-ray to laboratory, from attending physician to duty nurse, from physical therapist to social worker. And since this often is the case, patients may ask: "Have those of you who complain about bureaucracy in government ever taken a good, long look at your own?"

Humanism in medicine, after all, is just another way of saying "I care." And patients are telling us that while the delivery system, and the people in it, care for them very well. Does the System, and the people in it, care about them as well?

People in government are telling us that the tens-of-billions of dollars it annually contributes to health care now add up to about 42% of the total health care dollar,

Continued on Page 42

CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitra activity than ather drugs in the ampicillin class and its use shauld be canfined ta these indicatians: Treatment of the fallawing infections:
RESPIRATORY TRACT
Tansillitis and pharyngitis coused by Graup A beta-hemalytic streptococci
Bronchitis and pneumanio coused by *S. pneumaniae* (formerly *D. pneumaniae*)
Otitis media caused by *S. pneumaniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbatian af chranic branchitis caused by *H. influenzae**
*Though clinical impravement has been shawn, bacterialogic cures connot be expected in all patients with chranic respiratary disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemalytic streptacacci ond stophylocacci, non-penicillinose producers.
URINARY TRACT INFECTIONS coused by *E. cali* and *P. mirabilis*. (This drug shauld nat be used in ony *E. cali* and *P. mirobilis* infections ather thon urinory tract.)
NOTE: Perfarm cultures and susceptibility tests initiolly and during treatment ta monitor effectiveness of therapy and susceptibility af bacteria. Theropy may be instituted priar ta results of sensitivity testing.
Contraindications Contraindicated in individuols with history of an allergic reactian to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of ontibiotics may pramate overgrowth of nonsusceptible organisms. If superinfection occurs, take oppropriate measures.
PREGNANCY: Pregnancy Categary B. Repraduction studies perfarmed in mice and rats at dases up ta 10 times the human dose revealed na evidence of impaired fertility ar harm to the fetus due to cyclacillin. There are, hawever, na adequate and well-cantralled studies in pregnant wamen. Because animal repraductian studies are nat always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is nat knawn whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given ta a nursing waman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with ather penicillins, untaward sensitivity reactions are likely, particularly in those who previausly demonstroted penicillin hypersensitivity ar with history af allergy, asthma, hoy fever, ar urticaria. Adverse reactians reparted with cyclacillin: diarrhea (in appraximately 1 aut of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in appraximately 1 in 60). Isolated instances af headoche, dizziness, abdaminal pain, vaginitis, and urticaria have been reparted. (See WARNINGS) Other less frequent adverse reactians which may accur and are reparted with ather penicillins are anemia, thrombocytopenio, thrambacytopenic purpura, leukapenia, neutrapenia and eosinophilia. These reactions are usuolly reversible an discantinuatian af therapy.
As with ather semisynthetic penicillins, SGOT elevations have been reported.
As with antibiatic therapy generally, continue treatment at least 48 ta 72 haurs after patient becames asymptamatic ar until bacterial eradicatian is evidenced. In Graup A beta-hemalytic streptacaccal infections, at least 10 days' treatment is recommended to guard againast risk af rheumatic fever or glomerulonephritis. In chranic urinary tract infectian, frequent bacterialogic and clinicol appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment far several weeks.
Cyclacillin is not indicated in children under 2 months of oge.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal functian. Due to prolanged serum half-life, patients with variaus degrees af renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced dases)

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Branchitis and Pneumania		
Mild ar Maderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chranic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg ta 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg ta 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dasage shauld not result in a dase higher than that for adults.
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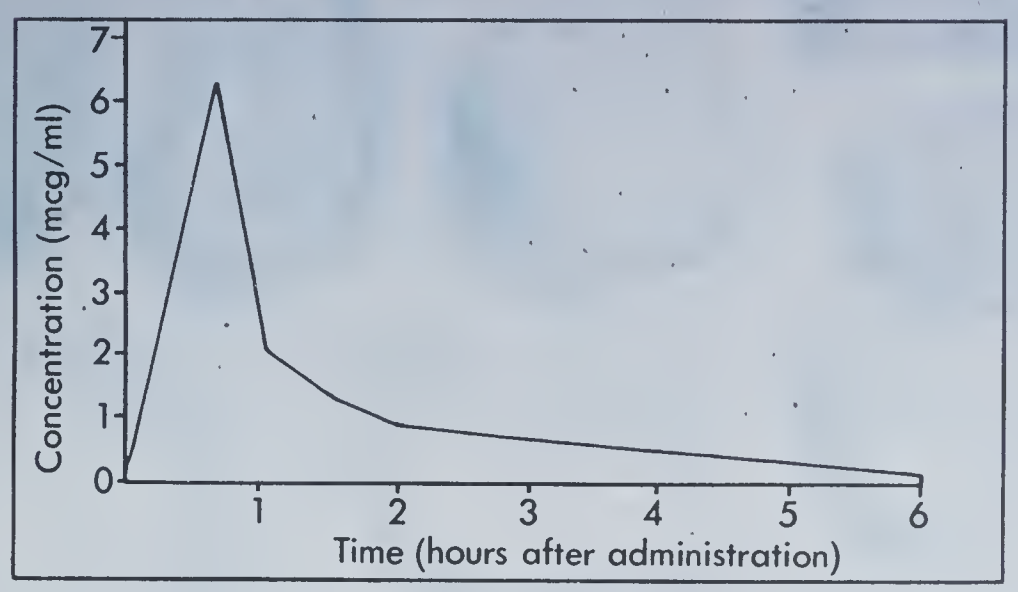
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Continued From Page 40

and the subsidization of about 38% of all personal health services provided. Since that is the case, they ask, aren't those people—including physicians—who maintain that government should have little or no input into health care policies living in a dream world?

Meanwhile, the Congress has many health care constituencies, of which our profession is but one. And the people in Congress are telling us they aren't receiving a whole lot of letters complimentary to the health care system these days. What they're receiving are letters of complaint.

Since that is the case, they ask, aren't there in fact some real problems—especially cost problems—out there in the health care world? And what is medicine, and organized medicine doing about them?

In like manner, the people in health insurance, and in business and industry, are telling us that today the premium dollar is at a premium. Yes, they say, we do have the finest system of medical education and practice in the world in terms of quality. And yes, our community hospitals are among the most modern and best-equipped facilities of their kind in the world. And yes, all but about 10% of Americans have financial access to the system through private and public insurance programs. But costs of all this are going up and up.

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And since that is the case, they ask, what in the world can be done to rationally restrain costs? Should the open-ended insurance system of paying for most of the costs of health care be closed to an extent? Should there be more competition in the systems for financing and delivering care? Should both physicians and patients assume more responsibility for their contributions to the cost problem? Are most of us physicians really aware of the costs of common tests and procedures? Do most of us physicians occasionally review a patient's hospital bill?

These are some of the hard, health care questions now being asked in our society. And in seeking to find answers to the questions, leaders from all elements of society have been doing a lot of talking, and listening, of late. Because effective leadership presupposes effective communication, or the ability to pay at least as much attention to someone else's point of view as you do to your own.

Parenthetically, the ability to listen to other points of view, and to respond accordingly, is evident in many of the activities of the AMA, and the activities of its Auxiliary as well.

Filling The Gaps

The AMA is on record in favor of filling any gaps that exist in health insurance coverage in this country, including government assistance when appropriate. Our policies against alcoholism, smoking, obesity and a host of other public health problems, are a matter of recent record.

While our Auxiliary has literally brought home to millions of Americans the life-giving value of personal health promotion. During the past two years, public service announcements with specific information on how people can "shape up for life" have been beamed to thousands of radios and TV sets in thousands of American homes.

Furthermore, the Auxiliary has established direct action programs in more than 500 communities in the nation, programs that directly involve thousands of people in proper nutrition and physical fitness.

While the AMA's headquarters staff is reorganizing certain programs around actioneering, as contrasted to pamphleteering, in health education. Through on-site visits and in other ways, we will be helping local medical societies, and local physicians, to reinforce the message of personal health promotion.

I might add and urge the thousands of practicing physicians in this country to involve themselves in carrying this message to patients. Because it is in the three million physician-patient contacts that occur in this country every day that personal health promotion can be most effective. People immediately concerned about their health are more likely to act accordingly, and act now.

AMA leadership also is evident in our policies and action programs with respect to the health care cost

problem. Our corporate visitation program has resulted in the creation of planning and action programs at both the national and local levels to bring business and health professionals together in common cost containment cause.

As you know, the AMA, is a key sponsor of the Voluntary Effort to Contain Health Care Costs, or VE, and the AMA was the sponsor of the deliberations and subsequent recommendations of the National Commission on the cost of Medical Care. But in each instance, the points of view of other concerned elements of our society, public as well as private, have been represented. And there are both palpable and potential benefits.

The VE has provided up to three-point-five-billion-dollars' worth of benefits to the American people in terms of money that would otherwise have been spent for hospital care. Parenthetically, what we've done and are doing through the VE and the national commission we've done and are going voluntarily. And the process hasn't called for the creation of new regulations. It hasn't established a new bureaucracy.

It has provided a first-of-its-kind-in-history national forum for face-to-face, sit-down-at-the-same-table, honest give-and-take, communication between all segments of our society on urgent health care problems. And the process has provided a voluntary, private-sector consensus, and coalition, with government representation included, as rational alternatives to intervention by government.

Which explains why the U.S. House of Representatives, in its wisdom, soundly defeated the Carter Administration's hospital cost cap bill last fall. And which also explains why the AMA House of Delegates, in its wisdom has approved our participation in the Voluntary Effort, and has adopted most of the cost commission's recommendations in whole or in part.

Congressional Leadership

Obviously, in so acting, neither House got everything that its members might have asked for, or wanted. But they talked, and they listened. They were willing to place the public interest ahead of personal interest if the occasion demanded it. They communicated. They demonstrated leadership.

All of which brings us, in turn, to what I believe is the most crucial challenge by far to American medicine and to the AMA at this most crucial point in time. The challenge is in fulfilling the potential benefits of voluntary cost containment activities.

How do we convince the other elements in our society that the consensus and the coalition exemplified by the VE and the national commission are not just passing things? How do we convince them we will continue to support the national forum provided, and that we will remain committed to the overall goals of this forum? In short, how do we extend our leadership in helping our society deal with health care problems at hand and on hand?

I believe we must continue to exercise the best kind of communication, which is by example. We must continue to act as well as react. We can take the AMA's national corporate visitation program, and turn it into many local action programs that will be responsive to local health care needs.

We can remind ourselves that when the Voluntary Effort ultimately has served its purpose, it can live on in spirit and in substance through the long-range recommendations of the national cost commission. This will happen, that is, if action programs to implement the commission's recommendations are given the highest priority by all institutions involved, and particularly by the health care system itself, by the medical profession, and by the federation of organized medicine.

Moreover, we must be willing to so act even when we're the ones with bullets to bite. For example, those of us in medicine, and the federation, have been quick to tell government where budget cuts should not be made, as in medical education and medical research. But we've said very little about where such cuts could be made, including areas where our own interests may be at stake. What that boils down to is "suitable" leadership, or leadership exercised primarily when it does suit us.

What we must demonstrate to government and the people within the next few years is "selfless" leadership. We must demonstrate, conclusively, that we've got the medical ground and the courage to make the pivotal decisions necessary for the allocation of scarce health care dollars, even if some self-sacrifice is required.

To that extent, then, this kind of leadership is not without its own costs. But leadership that costs nothing usually is worth nothing. No one knows that any better than the leaders of this federation. Because such leadership by the federation has meant a great deal of late to our society, and to our profession.

Isn't that why this association, its delegates, its trustees, and its staff, along with like segments of state and local medical societies and thousands of physicians across the country, in concert with representatives of the AHA, the FAH, and the other private and public institutions involved, sent out the ringing message of the Voluntary Effort, and endorsed most of the recommendations of the cost commission, even those contrary to established policy?

Doesn't this also reflect a recognition by our leadership that while the demands for health care are infinite, private and public funds to meet these demands are finite, and getting more so in today's uncertain economy?

Demands and Dollars

And finally, as our society makes the crucial decisions necessary to strike a reasonable balance between demands and dollars, doesn't all of this mean that those of us in American medicine must demonstrate to our society, right now, today, that we are willing and able to

share our health care knowledge and expertise, and that we are willing and able to help society strike a health care balance that is reasonable-especially in terms of the real needs of our patients?

And isn't the American Medical Association the only organization that can represent all elements of medicine, and hence can so represent medicine, to and with the other elements of our society?

None of this is to take credit for, or detract from, the leadership displayed by other medical organizations. The cite just one of many examples, our medical schools, with strong support from medical students and housestaff physicians, are reemphasizing the need to care about patients as well as for them, and to instill cost consciousness as well as clinical consciousness in medical education and training.

But here, too, the AMA has been talking, and listening. With the addition of the medical school, medical student, and housestaff sections to our House of Delegates, we have been talking and listening to medical educators, students, and resident physicians.

We have been telling them to come join all of the medical family members represented in the AMA, to help resolve the health care problems of the day. And they are joining us. More than 40,000 students and resident physicians have come into the fold.

Meanwhile, medical educators, along with women physicians and foreign-trained physicians, have been given priority status in current AMA membership efforts. Last fall we mailed the brochure entitled "AMA's New Voice in the House: The Academician," to medical educators throughout the country. And the letters they sent back speak well for medical schools, and for the AMA.

Involving Everyone

One academician said: "I would be very much interested in learning more about the (medical school) section, and (in) discovering ways in which I could contribute to its success." Another commented: "We appreciate very much the interest of the American Medical Association in education, and in turn support your goals."

And an educator who recently joined the AMA said: "Only now do I realize the tremendous importance of AMA participation in medical education, (in) planning the health care of patients, and (in) guiding the sponsorship of health programs by the federal government."

We at the AMA are hoping for the same kind of contributions, interest, and participation in seeking to add more women physicians, and foreign-trained physicians, to our ranks.

As a male, I don't pretend to fully understand all of the dimensions of the movement toward women's liberation. But as a physician, I very much appreciate the vital contributions, past and present, that women have made to medical education and practice. And as an officer of this association, I sincerely hope that many more women will join us, to help resolve the health care problems before society, and to make new contributions to medicine.

To physicians trained in other nations, I say: "When you came to America, you also become eligible to join the family of American medicine." And I sincerely hope that you, too, will join us, to talk and to listen, and to provide this association and this society with your contributions.

Parenthetically, there are certain unique contributions that both groups have to provide. The most important of these is a clear understanding, and a genuine appreciation, of the rights and the freedoms that those of us who live in this democracy are or should be privileged to enjoy. America and American medicine have enough detractors. We sorely need more supporters.

We who represent the AMA know that it has its share of detractors, including physicians—both town and gown—who elect not to join for one reason or another. At various medical meetings, I have listened to these physicians, and I've heard their complaints. Not all of the complaints are justified. I've met some physicians, fortunately few in number, who I have come to think of as "medical moaners." They moan that their county or state medical societies or the AMA don't do this or don't do that, so they don't join. They moan that government, health insurors, business or industry, or what have you, should be doing this and shouldn't be doing that. So they establish or join splinter groups, and stand fast, and apart, on their own opinions.

To these physicians I say, "by standing fast you're standing still." It's high time to quit moaning, and get moving, in helping our society resolve the health care problems before it. To these physicians I say, "the only way we can fulfill all of our obligations to society is through the federation of organized medicine, including the AMA.

"So come join us." The AMA is harbor to all points of view, from liberal to conservative and all shades between.

Some of the complaints about the AMA are justified. But then the AMA, like our society, has evolved along democratic lines. And the wheels of democracy can turn slowly, and not always in the direction that each of us might like. In listening to other elements of our society, we don't always hear what we want to hear, and our opinions, policies and programs don't always prevail.

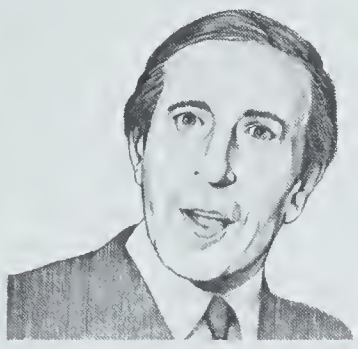
However, free and open debate, and the willingness to abide by majority decision, are the essence of democracy, and the essence of the AMA. And if AMA leadership positions occasionally hurt, they do so precisely because of people who do hurt, the patients we are bound to serve. Every physician in this country has a responsibility to be a productive citizen as well as a professional clinician.

That's what AMA leadership, and our many beneficial activities on behalf of the profession and the public are all about.

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"No Variety"



"Hard To Cook"



"Only Cottage Cheese?"



"Daddy's Dull Diet"

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Physicians Placement

The Medical Association of the State of Alabama maintains the Physicians' Placement as a service to the medical profession in the state of Alabama. Opportunities for practice in Alabama will be published and will be distributed to physicians making inquiry. Physicians wishing to establish practice are invited to submit a resume to be kept on file with the Association. For further information write: Mr. Emmett Wyatt, Executive Assistant, MASA, P.O. Box 1900-C, Montgomery, Alabama 36197 or call (205) 263-6441.

LOCATIONS WANTED (Physicians interested in locating in Alabama)

FAMILY PRACTICE: Age 43; University of South Alabama, 1978; seeking practice in a small town preferably in a rural area; Available September 1, 1981. LW-110180.

* * *

FAMILY PRACTICE/OBSTETRICS: Age 27; Harvard, 1978; seeking practice in solo in a town with a population less than 25,000. Available July 1981. LW-110280.

* * *

FAMILY PRACTICE: Age 32; Meharry, 1976; American Board Eligible; seeking practice in assistant or associate, institutional preferably in the Montgomery, Mobile or Birmingham areas with a population of 200,000 or more. LW-090180.

* * *

FAMILY PRACTICE: Indiana University, 1978; seeking practice in multi-specialty group, single specialty group or partnership. Available July 1981. LW-40262.

* * *

FAMILY PRACTICE: Case Western Reserve, 1967; National Board Certified; seeking practice in school health, industrial or institutionally based. LW-40280.

* * *

FAMILY PRACTICE: University of Mississippi, 1978; seeking practice in single specialty group, partnership or multi-specialty group. Available September 1981. LW-40355.

* * *

FAMILY PRACTICE: University of Alabama, 1978; National Board Certified; seeking practice in single specialty group, partnership or multi-specialty group. Available July 1981. LW-40315.

* * *

INTERNAL MEDICINE: Age 31; North Carolina, 1976, American Board Certified in Internal Medicine in 1980; seeking practice in general, including outpatient, in-patient and emergency room care preferably in a moderate to large city, southeastern area. Available in spring of 1981. LW-030380.

* * *

INTERNAL MEDICINE: Age 35; University of Texas, 1978; American Board Eligible for Internal Medicine in 1981; seeking practice with a small group, particularly interested in the Huntsville, Birmingham and Montgomery areas. Available July 1981. LW-080180.

* * *

OBSTETRICS AND GYNECOLOGY: University of North Carolina, 1974; seeking practice in solo, partnership of single specialty group. Available August 1981. LW-40112.

* * *

PATHOLOGY: Age 37; Meharry, 1974; seeking practice in assistant or associate, institutional or group. Available July 1981. LW-110579. (See LW-110679).

PEDIATRICIAN/GENERAL PRACTICE: Age 31; University of Arizona, 1975; American Board Eligible; seeking practice in institutional or group preferably in the southern area near Mobile. Available July 1981. LW-110679. (See LW-110579).

* * *

PRIMARY CARE: Baylor College of Medicine, 1977; seeking location in areas which do not now have a physician or areas which will soon be without a physician. Available 1981. LW-080480.

* * *

PULMONARY DISEASES: Age 31; Ohio, 1974; American Board Certified; seeking practice preferably in an area with a population greater than 150,000 or in any growing communities. Available in July 1981. LW-080680.

SURGERY, GENERAL: Age 29; University of Alabama, 1976; American Board Eligible; National Board Certified; seeking practice preferably in the northeastern or southwestern section with a population of 10,000-25,000. Available July 1981. LW-070280.

* * *

UROLOGY: Age 34; University of Chicago, 1970; American Board Certified; seeking practice preferably on the coast or in the hills in a town with a population greater than 40,000. LW-080780.

* * *

PSYCHIATRY: Age 31; Christian Medical College, 1975; American Board Eligible, seeking a position in a VA hospital or a mental health center in a metropolitan area with a population over 250,000. Available October 1981. PW-080580.

PHYSICIANS WANTED (Opportunities for Practice)

DIAGNOSTIC RADIOLOGIST: Opportunity for Diagnostic Radiologist. Must be able to do Nuclear Medicine, Angio, and C.T. Scanning. Immediate opening available. PW-110180.

* * *

EMERGENCY MEDICINE: Emergency group seeking full time physician to join established group. Malpractice insurance paid, fee-for-service compensation with guarantee. PW-110280.

* * *

EMERGENCY MEDICINE: Town of 10,000 needs physician to cover Emergency Room of Small general hospital. Weekend coverage already available. Coverage needed for approximately 9 hours a day, 5 days a week (Monday through Friday) salary negotiable. PW-090380.

* * *

FAMILY OR GENERAL PRACTITIONER: To associate with established general practitioner. Unusual opportunity to grow in a well equipped building located in the Birmingham area. No OB's. Scheduled hours with time for vacation, leisure and city convenience. PW-090280.

* * *

FAMILY PRACTICE: Unusual opportunity to take over a practice in a community of 1,600, trade area of 8,200 in a county of 32,000 residents in north Alabama. Hospital located nearby. Second largest town in the county. Tremendous potential for growth. OB optional. Four churches, two schools. Leisure activities include water sports, fishing, camping and golf course. PW-080880.

* * *

FAMILY PRACTITIONER: Opportunity to practice in a community of 1,500, trade area 5,000. Principal source of income for community is Industry and Oil. Membership on the hospital staff is open. Country clubs and golf courses nearby. Nearest large city with population of 100,000 is 40 miles away. PW-080980.

* * *

NEARLY IDEAL SETUP FOR TWO FAMILY PRACTITIONERS: Fully equipped office available. Excellent building, ample parking, Fifty-year doctor retiring. Prosperous town, junior college and excellent schools. Recreation facilities unexcelled. Accredited hospital. Must be fully investigated to be appreciated. PW-060180.

* * *

FAMILY PRACTITIONER: Existing multi-specialty clinic seeks physicians for new satellite clinic in Butler, Alabama. First year guaranteed salary with excellent benefits. Partnership opportunity. PW-050180.

* * *

FAMILY PRACTITIONER: Would like Christian M.D. to cover established practice for an intermediate-length term in the Birmingham area. Nice opportunity for a change. PW-090480.

* * *

INTERNIST: Association with two Internists in hospital and office practice in Montgomery, Alabama. Hospital well equipped with new CCU, telemetry, etc. Board certified preferred. Terms liberal. PW-060280.

* * *

ORTHO, OB-GYN, UROLOGY: Excellent opportunity available with six (6) F.P.'s and one (1) General Surgeon. Office available. Super hunting, fishing and boating. One hour to Gulf Shores Beach. Diversified industry. Town approx. 7,000 with trade area approx. 15,000. PW-060380.

* * *

PEDIATRICIAN: An associate is needed to join an established, extensive Pediatric practice—(general pediatrics, pediatric allergy and consulting and hospital peds.). Outstanding geographic, economic, cultural and professional opportunity. Minimal night and week end work due to cooperative arrangements with other pediatricians and emergency physicians. Initial salary negotiable with early partnership participation. PW-081080.

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PEDIATRICS: A 36 yr. old pediatrician with four year old solo practice in Saraland, Alabama. Located 15 minutes north of Mobile, Alabama. Desires associate pediatrician. PW-110380.



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Each tablet contains: aspirin, 325 mg; plus codeine phosphate, 30 mg, (Warning — may be habit-forming). Ⓒ III

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For the most effective dosage in treating acute pain, begin with... two tablets of Empirin c̄ Codeine #2 or #3, every four hours. Titrate downward as pain subsides.

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Ⓒ III

DESCRIPTION: Each tablet contains aspirin (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No. 3 — 30 mg, and No. 4 — 60 mg. (Warning — may be habit-forming.)

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies: patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

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Mrs. O. B. Carr, Jr.
President, A–MASA

Step Backward Avoided

Comprehensive health education has been recognized as an integral aspect of quality education to be provided in Alabama Schools. On June 17, 1976, the Alabama State Board of Education adopted a resolution in support and urged that comprehensive health education be taught sequentially by qualified teachers in every school under the authority of the State Department of Education.

Certainly we have come far, but we have far to go. The State Superintendent of Education, Dr. Wayne Teague, has always been very supportive and worked with many interested groups to help promote comprehensive health education in our state.

At present the State Department is being restructured, staff has been cut, and local schools are under proration. There is no longer a Health Education Specialist available to promote and enrich programs for the State Department of Education and health education in Alabama Schools is still very fragmented at best.

In the last legislative session we almost took a step backwards with the health education law, which requires a semester of health education for graduation beginning in 1982-83. This law was passed in 1978 after much hard work by the Auxiliary under the guidance of Mr. Richard Whitaker, Governmental Affairs Director for MASA.

The bill to repeal the Health Education Law was introduced by the present administration in both houses, but was soundly defeated in committee through combined efforts of auxiliary members, MASA, volunteer health related organizations, Senator Dewey White (physician from Jefferson County), other concerned legislators, HSA Organizations of Alabama, PTA members, Alabama Health Educators, and many concerned individuals in our state.

The people of Alabama are very interested in health education and in some high schools the required semester is already being taught because the need has been recognized. I'm sure you will agree that a revitalization effort of the general public, parents, local school boards, teachers, educational professionals, legislators, Health Education Coordinators from the 127 Alabama School Districts, Health Education Task Force and Coordinating Committee and health-related organizations, for the continued need for Comprehensive School Health Education K-12 in Alabama schools is vitally needed.

A Comprehensive School Health Education Awareness Seminar has been planned for October 29, 1980, at U.A.B., co-sponsored by The Auxiliary to the Medical Association of The State of Alabama and the University of Alabama in Birmingham, School of Education.

The seminar is supported by many volunteer health related organizations in Alabama, the Alabama Congress of Parents and Teachers, The Alabama Health Systems Agency, Alabama Department of Public Health, The Alabama Medical Association, and many other individuals and organizations in our state.

Dr. Mabel Robinson, Professor of Health Education and Assistant Dean, School of Education at U.A.B., is helping to coordinate and plan the meeting with the auxiliary.

The Seminar will be held October 29, 1980 in Building I at U.A.B. from 10 a.m. until 3 p.m.

Dr. Pete Cortese, Director, Comprehensive School Health, Department of Education, Washington, D.C. will be the keynote speaker, presenting a national update focusing on national interest in health education, the Department of Education's present position and current activities to promote health education, federal funds available and other innovative state programs now in progress.

Other program participants will be representatives of the Alabama State Department of Education, Dr. Mabel Robinson, Dr. Richard Means, Professor of Health Education, Auburn University, Chairman of the Health Education Advisory Committee, Senator Lister Hill Proctor, member of Education Committee of Alabama Senate, representatives of existing health educational programs in our state to explain the when, how and why's of how a program was started on the local level, with and without federal funds, and other outstanding speakers concerned about health issues.

The invited audience will be Health Education Coordinators from each school district, parents, legislators, health education professionals from Alabama colleges

President-elect, Mrs. Rufus Lee; First Vice-President, Mrs. Robert Estock; District Vice-Presidents: NW, Mrs. Robert Rhyne; NE, Mrs. Andrew Brown; SW, Mrs. John Taylor; SE, Mrs. William Lazenby; Recording Secretary, Mrs. Ralph Braund; Treasurer, Mrs. Lamar Thomas.

and universities, members of the Health Education Advisory and Coordinating Committee, health educators and representatives from various health related organizations in Alabama, physicians, auxiliary members, PTA members and other interested groups. Each health organization will be provided space for a booth to display educational materials and services provided for parents, teachers, students and the public.

In order to continue to increase the awareness of the continued need of health education in our schools, a workshop for teachers to receive continuing education credit is scheduled for early summer of 1981, thus enriching the program on a local level.

Few would dispute that programs of health education in the schools of Alabama have been less than satisfactory, but as you can see many parents organizations, health educators and concerned citizens as well as Dr. Wayne Teague, State Superintendent of Education, are committed to continued progress forward to bring about a better understanding of the subject and its importance, as well as inspire improved program development.

The Auxiliary appreciates your interest and support in this revitalization effort for the young people and future parents of Alabama.

Mary

PHYSICIANS

One of America's largest health care corporations is currently seeking a part-time Physician for our Plasma Donor Center located in Mobile. Responsibilities will include performing physicals in conjunction with donor screening and evaluation when regular Staff Physicians are on vacation.

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For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets



Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Please see back cover.

Her next attack of cystitis may require

the Bactrim™ 3-system counterattack



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Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

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JOURNAL

of the Medical Association of the State of Alabama

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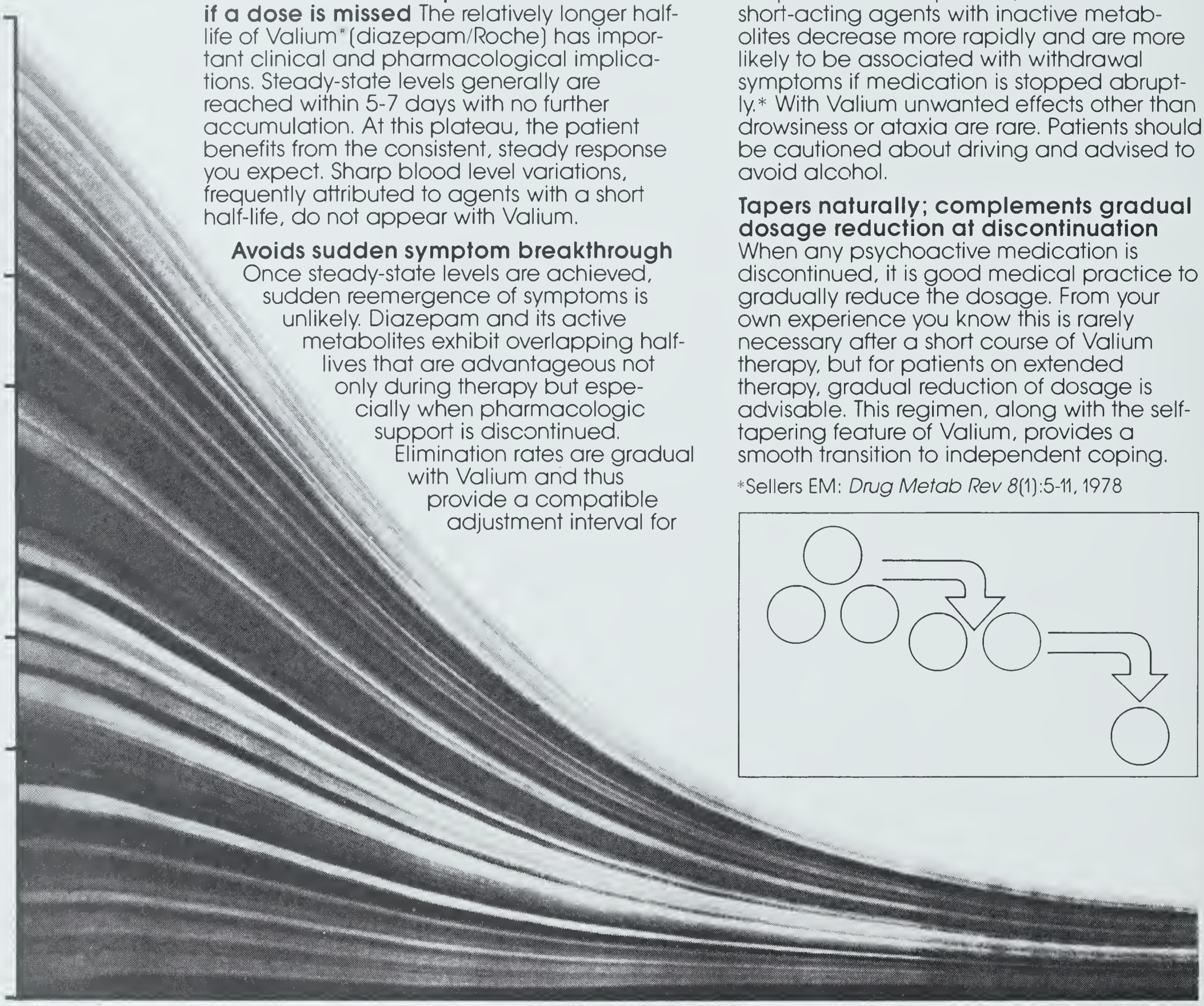
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half-life

Just one built-in advantage



Ensures smooth therapeutic effect even if a dose is missed The relatively longer half-life of Valium® (diazepam/Roche) has important clinical and pharmacological implications. Steady-state levels generally are reached within 5-7 days with no further accumulation. At this plateau, the patient benefits from the consistent, steady response you expect. Sharp blood level variations, frequently attributed to agents with a short half-life, do not appear with Valium.

Avoids sudden symptom breakthrough Once steady-state levels are achieved, sudden reemergence of symptoms is unlikely. Diazepam and its active metabolites exhibit overlapping half-lives that are advantageous not only during therapy but especially when pharmacologic support is discontinued. Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for the patient. In comparison, blood levels of short-acting agents with inactive metabolites decrease more rapidly and are more likely to be associated with withdrawal symptoms if medication is stopped abruptly.* With Valium unwanted effects other than drowsiness or ataxia are rare. Patients should be cautioned about driving and advised to avoid alcohol.

Tapers naturally; complements gradual dosage reduction at discontinuation When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev 8*(1):5-11, 1978

in the management of symptoms of anxiety

Valium® IV

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

effective therapy through efficient pharmacodynamics

Before prescribing, please see summary of product information on next page.

ROCHE®

Valium®IV
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies The physician should periodically reassess the usefulness of the drug for the individual patient
Contraindicated: Known hypersensitivity to the drug Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy
Warnings: Not of value in psychotic patients Caution against hazardous occupations requiring complete mental alertness When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures Advise against simultaneous ingestion of alcohol and other CNS depressants Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months After extended therapy, gradually taper dosage Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy

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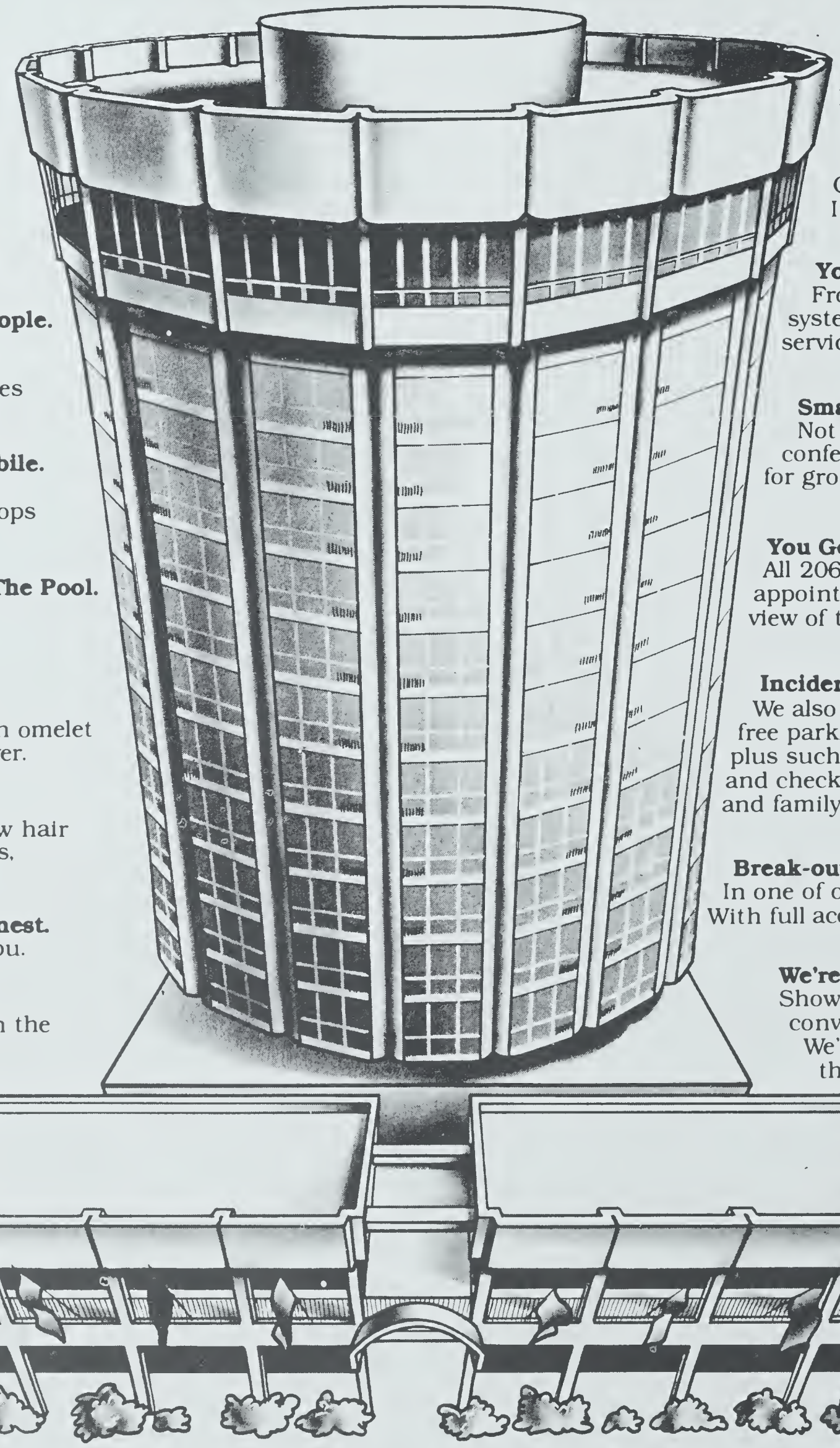
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FROM THE EXECUTIVE DIRECTOR

Self-Pity is Ruinous

Perhaps it was because a new decade had dawned, which is always a time of wondering what it will be like, but 1980 found many of us with serious concerns about the faith, purpose and power of our country.

We saw a once powerful nation humbled by pipsqueak dictators in the Middle East; neutralized by unpreparedness against further territorial expansion of the Soviet Union. We saw our economy racked and shaken by inflation gone through the roof. We saw a national election in which the pollsters and other pulse-feelers told us that Americans were thoroughly disenchanted with both major parties and what they often referred to as the "system." (But the vote November 4th surprised the pollsters with the depth and breadth of its decisiveness.)

The cruelest tax of all, double-digit inflation, hit almost everyone, setting the stage for the crisis of national conscience observers said occurred in 1980.

Many of the jokes of the year were truly sick, poking fun at America the bumbling.

We all laughed at some of the gallows humor, but not with that kind of rising levity that has been the salvation of Americans in many tight spots before, even in the face of almost certain death. It was the half-laughter of despair.

We spent most of the year, in short, wearing the hair shirt of national self-pity. There was much to be angry about, much to vote against, and much to raise Cain about, but self-pity is not in our national character. Yet we have indulged in this kind of mortification before.

Remember when the Soviet Union launched Sputnik I in October 1957? The shock and dismay that a communist nation could have whipped America's vaunted science and technology had the nation's pundits crying about how America had gone soft, how tailfins on our cars (remember tailfins?) had replaced the musket over the fireplace, how our children were so far behind Soviet children in school that they might never catch up.

One book featured the most sonorous of the nation's commentators, men whose names were and are household words. They told how we had gone to pot, how we didn't have any pride and very little purpose any more, that the American dream had faded; the can-do spirit had left us.

The picture painted was of a totally demoralized people, misled by their national leaders and by the getting-and-spending ethic that had replaced the work ethic.

And all this doomsaying and crepe-hanging proved utterly false. After some embarrassing first steps, with our rockets fizzling on the launching pad, we went on to outstrip the Soviet space effort so far that no contest remained.

America has had, through the 200 years of its history, many periods of depression and doubt. We have always come out of them, to rise to new pinnacles of achievement.

And, as surely as Providence gave us the most blessed of all lands, we shall again arise, from the impotency of self-doubt. We are a great people. And only the truly great, Shakespeare taught us, can have soul-searching doubts. Lesser individuals and nations simply don't care that much. They are satisfied with mediocrity. Americans are not, nor will they long tolerate it, as I think 1981 will show.

To each of our physicians and your families, I hope the rebirth of national purpose will touch your lives in a very personal and satisfying way.



S. Lon Conner

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CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated.
WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.
PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings.)
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DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole.
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Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation.
INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis. Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold.
CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.
Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant.
WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effect caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers.
PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease. Caution should also be used in patients with pulmonary, hepatic or renal insufficiency.
ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions.
DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period.
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President's Message



C. A. Lightcap, M. D.
President

Christmas 1980

So much has been said and written about Christmas that I won't attempt to be original in my greeting to you. One of the beauties of this holy season is that it is the familiar and the timeworn we cherish most, rather than the novel.

Who can really improve on that simplest of all messages of good will among men given to us almost 2,000 years ago—a message that mankind has never really learned but can never forget?

If the upwelling of friendship and human warmth at this special season in the Western World (and even in many parts of the East) strikes the cynic as hypocritical and false and thus bringing to question the real meaning of Christmas, I believe that most of us simply reserve for this season the feelings we have the rest of the year.

Christmas is a time when we can show our love and devotion and the simple bonds of everyday friendships without apology and without embarrassment.

The spirit of Christmas does indeed live with us throughout the year, but it is only at this season that custom and tradition have given us a special license—indeed a duty—to declare those feelings that lie silent within us 11 months of the year.

The debunkers have damned Christmas for everything from gross materialism to debauchery of the minds of the young. But I think the answer to that lies in the perpetuation of our celebration of the Nativity. If someone could somehow contrive to put the custom of Christmas to a national vote—to a plebiscite—I would venture the guess that approval would exceed 90%.

It is in this belief that I feel honored as your president offer my special wish to you and all your loved ones that this will indeed be the happiest Christmas ever and that 1981 will come as close as mortal man can hope for true happiness—that serenity of spirit that comes with achievement, service to mankind, and the pride of the noblest of all professions.

C. A. LIGHTCAP, M.D.

SURGICAL MANAGEMENT OF IMPOTENCE WITH AN INFLATABLE PENILE PROSTHESIS

By A.M. Deason, Jr., M.D., A.D. Crowe, M.D., A.J. Tully, Jr., M.D., W.A. Leitner, M.D., Cecil Morgan, Jr., M.D., Chris Spivey, S.A.*

Since 1976, we have treated impotence with surgical implantation of penile prosthesis. Initially, we began using the semi-rigid silicone rods, such as the Small Carrion and Finney Flexi-rod prosthesis. Within the last two years we have had excellent patient and partner satisfaction with the Scott-Bradley inflatable penile prosthesis. Of the nine inflatable prostheses we have implanted, only two have had complications requiring reoperation, of which none were attributable to infection.

PATIENT SELECTION

In Table I is a listing of the etiology of impotence in our patients whose age range from 30 to 66 years.

Table I—ETIOLOGY OF IMPOTENCE

Post Prostatectomy	3
Diabetes Mellitus	3
Peyronie's Disease	1
Vascular Disease	3

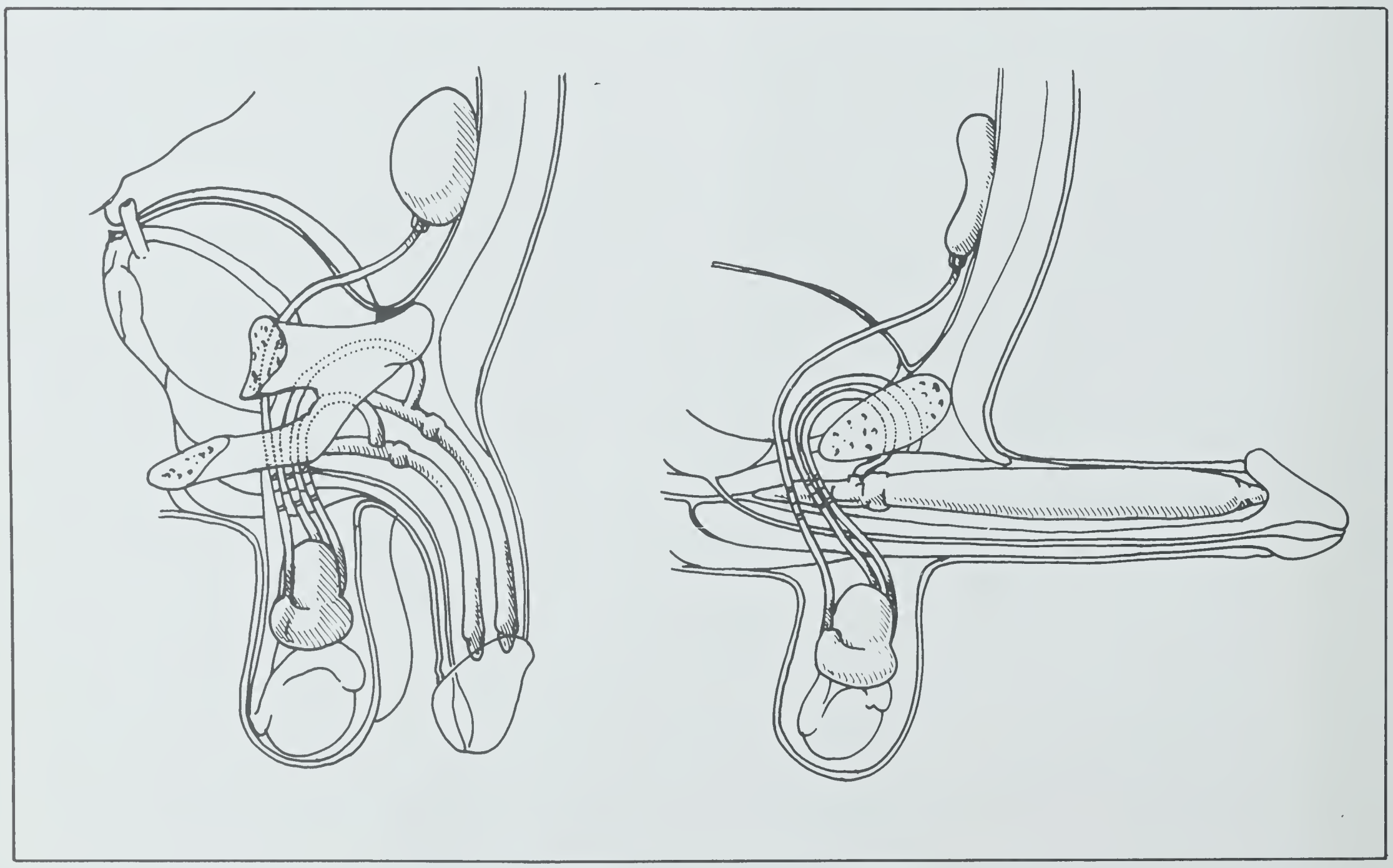
Further indications for operative intervention for impotence are listed in Table II

Table II—CAUSES FOR IMPOTENCE

Post Cystectomy
Perineal Trauma
Neurologic Disorders
Proctocolectomy
Post Radiation
Estrogen Therapy
Psychogenic
Drug Therapy

It has been recommended that preoperative evaluation should consist of a psychiatric examination, psychological profile with Minnesota Multiphasic Personality Inventory (MMPI) and Nocturnal Penile Tumescent studies. We obtain psychiatric evaluation occasionally

*Urology Associates Professional Corporation, Birmingham, Alabama.



and this is especially recommended in paraplegics. We have not employed the other modalities of evaluation because of the expense involved and limited information provided, although they may be useful in certain situations. The Nocturnal Penile Tumescent monitor has been a useful technique in isolated circumstances in differentiating organic from psychogenic impotence.

SURGICAL MANAGEMENT

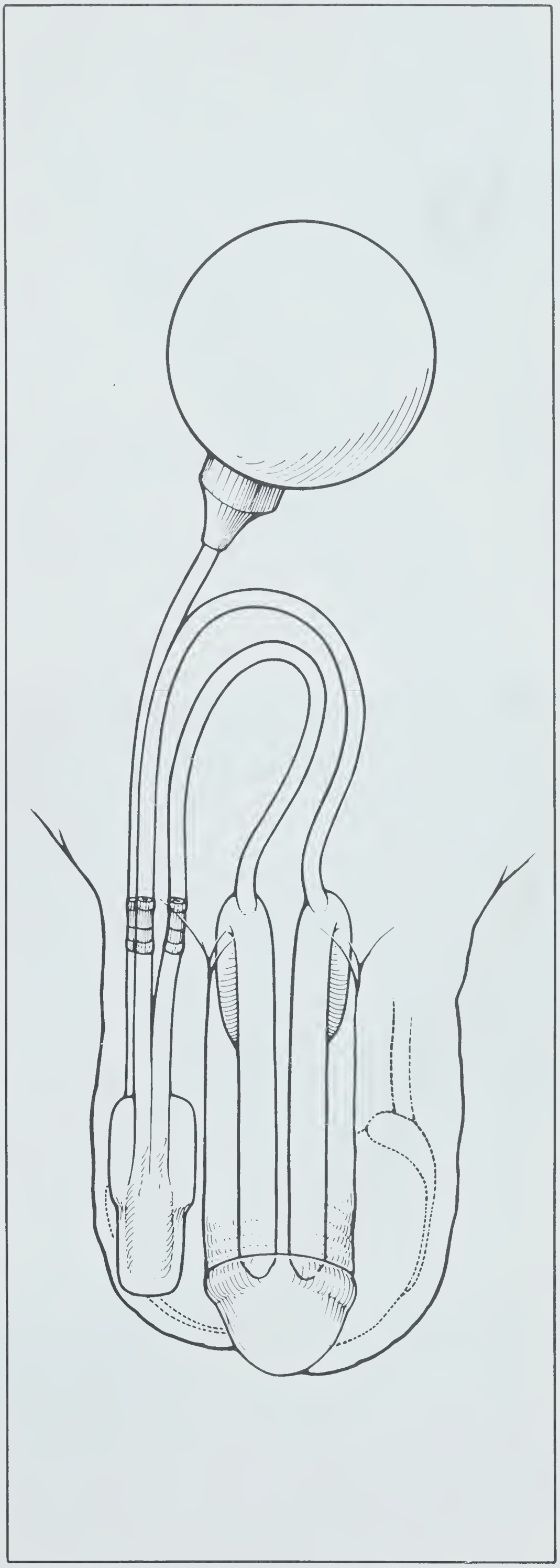
Patients are admitted the day before surgery for antibiotic therapy and perineal scrubs with hexachlorophene or iodine. The patient is subsequently taken to the operating room and placed in a supine frog-leg position with the hips over the break in the table. This facilitates posterior dissection if necessary. A vertical 6 cm incision is made at the penoscrotal junction after a urethral catheter has been placed in the bladder. The corpora cavernosa are identified bilaterally and prolene stay sutures are placed laterally to aid in exposure and measurement. The corpora are incised 3 cm and dilated with Hegar dilators anteriorally to size 11 and posteriorally to size 12. Measurements are obtained taking care not to overstretch the penis.

Due to mobility of the scrotum, a tunnel is made up the spermatic cord to the external inguinal ring. A Stille Kelly is punched through the fascia medial to the ring and just above the pubic bone. By blunt finger dissection, a pocket is made in the prevesical space and with insertion of a narrow deaver, the almost empty reservoir can be positioned in the prevesical space without the necessity of a second suprapubic incision. The pump is now placed in the scrotal compartment at its most dependent point. Occasionally, removal of the testicle is performed in post prostatectomy patients with adenocarcinoma. A pocket is made outside the tunica vaginalis and between the Dartos' fascia. The fascia is closed around the pump to maintain its position.

The penile cylinders which have now been autoclaved, are inserted in the corpora and closed with prolene suture. All connections are subsequently made, taking care not to kink the tubing, and the wound is closed. Periodically during the procedure the wound is irrigated with Kanamycin and the prosthesis is kept in the antibiotic solution until ready for use. Care is taken to remove air bubbles from the components of the prosthesis during insertion. The prosthesis is then partially inflated and a dressing is applied for support and prevention of pressure from the bedding. The prosthesis is inflated daily until the patient is discharged and he is then instructed in daily inflation and deflation. Patients are advised not to use the device for 4-6 weeks.

COMPLICATIONS

We have seen two mechanical complications which required reoperation. In one patient the pump migrated superiorally with kinking of the tubing which caused slow



inflation and deflation of the prosthesis. Our other mechanical complication was leaking due to erosion of the tubing by the prolene ties around the connectors. Both cases required surgical correction with repositioning of the pump and shortening of the tubing in the first and repair of the connectors in the second. Both of these complications occurred early in our series and were due to technical problems in the surgical procedure. In both cases revision was accomplished with a minimum of difficulty both in terms of the operative procedure and the hospital stay.

An intraoperative complication recently was failure of the cylinders to inflate or deflate after placement within the corpora. Tunneling of the tubing within the corpora was the apparent cause and could only be corrected after extending the corporal incision posteriorally so that the tubing could exit at the point of insertion into the cylinders.

Some patients have difficulty learning how to operate the device. We have found it advisable to have a spare prosthesis so that the patient can see the device while palpating the implanted pump. Pain with operation of the pump diminishes within three to six weeks postoperatively and is not a complication thereafter.

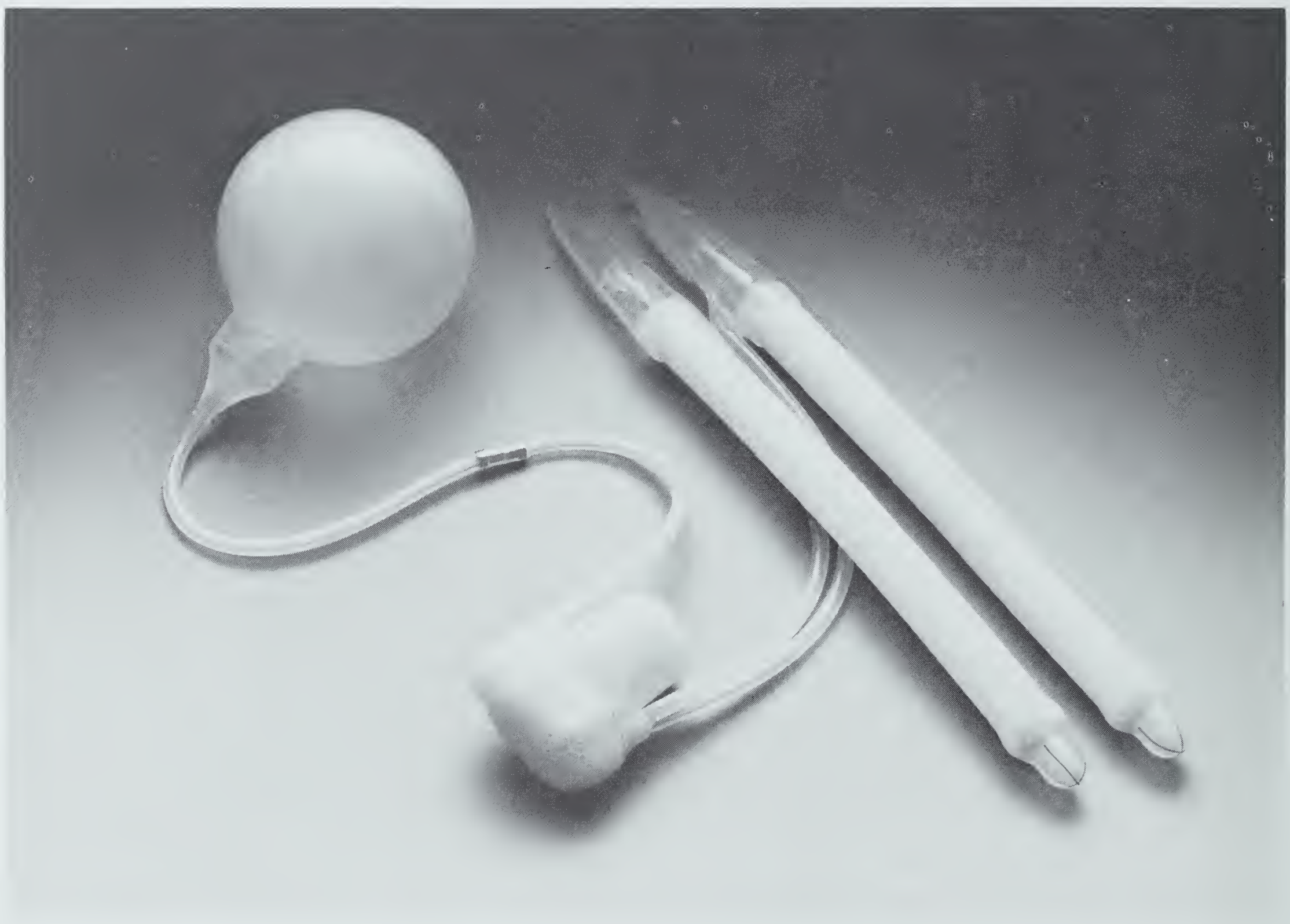
CONCLUSIONS

We have found the Scott-Bradley inflatable penile prosthesis to be a highly successful method of treatment for intractable impotence.

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THE TELEPHONE DOCTOR OF WILCOX COUNTY

By William H. McDonald

As one of two physicians in largely rural Wilcox County, James D. Nettles, M.D., would seem to have had his hands full before Fidel Castro put him in the telephone business.

That's the way he tells it to visitors who remark on the Pine Belt Telephone Company office next to his office on a fairly wide place in a narrow road in Arlington, Ala., West Wilcox County. A general store next to Dr. Nettles' office and the automatic dialing equipment building just beyond are about all there is to the central business district of Arlington. Most maps don't tell you where Arlington is, as Dr. Nettles explains:

"Rand McNally rubbed us off their map in 1921. (The year Dr. Nettles was born there, incidentally.) But nobody around here cares. We know where we are.

"This country was settled in 1819 when the Georgia Territory was opened up. I'm a newcomer to the area. My people had settled in Monroe County first, and didn't get here until the early 1890s.

"The area was settled by the French from Demopolis. Some of the old names around here are Agee, Dumas, Fontaine, DeVan—so you can see the French influence."

HALF A MILLION BUCKS

Communication is a problem for the rural practitioner. Dr. Nettles has always had two-way radios. This, by a fortuitous route, led to his telephone company, which now boasts 2,000 subscribers with current revenues of $480,000.

As Dr. Nettles tells it, the way Castro put him in the business, was this:

In 1957, he was in Birmingham having his radio worked on when he saw a system of 100 phones in one building operating off a little dial board. It was all automatic, unattended.

Impressed (he is an electronics buff), Dr. Nettles inquired about the board. Arlington had had phones from 1900 to about 1930 but it wasn't economic to maintain the lines, which fell into disrepair during the Depression. A few of the old magneto phones were still around, but no longer connected to lines.

His brother had connected six lines from his saw mill to his home, his mother's home, etc., but apart from these there were no operating phones still in Wilcox when the communications-minded Dr. Nettles decided the situation was intolerable.

A man of direct action, he called the manufacturer of the board he had seen in Birmingham, International Telephone & Telegraph, and found ITT's Chicago office surprisingly eager to sell to an individual.

Reason: The Cuban dictator had just confiscated $80 million in ITT's Cuban assets and the company thought it might recoup by developing an American domestic market, such as the one Dr. Nettles seemed to represent.

The board arrived quickly but there was a catch—no one at ITT was available to install it, as Dr. Nettles had assumed. That would take perhaps six months, ITT told him.

No man to countenance delays, Dr. Nettles decided he could do it himself. In short order, he wired the board and had it installed, though there were only 44 subscribers initially, less than half of capacity. Some months after it was in operation, an ITT representative finally dropped in to see how things were going.

The board worked like a charm, Dr. Nettles told him, but he did have one complaint: Somebody on ITT's assembly line must have been half crazy to have labeled all the circuits in such a way that a man had to stand on his head to read the numbers.

The ITT man looked at Dr. Nettles' board and laughed for five minutes. Somebody was daft, all right, but it was the man who had installed the board, not the assembly line worker, he said.

Dr. Nettles, ignoring the directions, had installed the board at right angles to its intended position, so that the relays, instead of working up and down against gravity, had been made into side-winders, functioning quite well in a position that should have been impossible.

One learns from mistakes, Dr. Nettles says with a philosophical shrug: He learned the correct way and ITT learned that its relays work quite well in impossible positions.

SWEET WATER TO ARLINGTON

Years ago, Dr. Nettles had been practicing in Sweet Water 20 miles away, when his father had a heart attack. Dr. Nettles moved to Arlington to take care of his father, only to discover that there were more people waiting at his office in Arlington, which Rand-McNally had taken off the map, than he had in Sweet Water.

His father lived seven years, dying in his sleep at 80. But a couple of circumstances suggested to Dr. Nettles that he just might remain in Arlington— (1) his mother was still active, and he should be near her; (2) by this time he had five children ("no record, but a

good average"). He had always wanted to be a country doctor and this was definitely country.

The land around Arlington is so low the visitor sees almost no houses—they're up in the trees on higher ground. In the rainy season the streams become so swollen they run backwards, Dr. Nettles swears.

In Dr. Nettles' current phone book there are some 2,000 subscribers of the Pine Belt Telephone Company in Arlington, Dixon Mills, Nanafalia, and Sweet Water—not bad for a little more than 20 years of operation.

He had a little help along the way. Some 25 years ago, the Rural Electric Association expanded its electrification help to telephone service in rural areas.

Dr. Nettles had put about $40,000 of his own money in the system when he was told by the REA that he had enough equity in it to apply for a 2% loan with 35 years to repay.

In all, he borrowed $3.8 million. His company became the first to successfully put all its lines underground, thus providing a virtually maintenance-free system.

He turned the design of the system over to professionals after deciding to borrow REA money. His domain covers 800 square miles, from the Alabama River on the East to the Tombigbee on the West. From the beginning the dial system has been completely automatic, with no operator.

"It's still fascinating to me," Dr. Nettles says, "to sit here in Arlington and dial a phone in Key West, Newfoundland, Alaska or Hawaii and have perfect transmission. Of course, with the automatic dialing system you lose the personal touch. You don't have an operator, for instance, who knows where the doctor is at all times. But everybody calls at the telephone business office to learn what's going on."



How in the world does a country doctor with an office full of patients have time for all this? The only explanation may be found in a yellowed paragraph occupying a position of honor on a cluttered wall that serves as Dr. Nettles' bulletin board. It reads:

"PRESS ON. Nothing in the world can take the place of persistence. Talent will not; nothing is more common than unsuccessful men with talent. Genius will not; unrewarded genius is almost a proverb. Education alone will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent."

If you think the man whose credo that is sounds like an educator of the old school, you wouldn't be far wrong. Dr. Nettles served his district for 16 years on the State Board of Education and is proud of the fact that he always swept Mobile at election time, a city where one precinct has more voters than all of his county.

Not being on the map has many advantages, Dr. Nettles explains. For one thing, it means lower crime from transients along Highway 5, Birmingham to Mobile. He is seldom burglarized but figures he would be hit two or three times a week if Arlington were more visible. Some folks in his community still never lock their doors, he says.

Nor does such isolation (as it might appear to the outlander) hamper good medical practice, he says:

"I use the hospital in Camden. It takes me about 25 minutes to drive the 22 miles, which may seem like a far piece but I'm really closer than the average city doctor is. Out in the country we can drive 20 or 30 miles in about the same time that you can drive from one side of Montgomery to the other.

"You think of time, not miles."

By Dr. Nettles' well-stuffed pigeonhole desk are what appear to be two large wastebaskets. One is, in fact, a wastebasket. The other is the key to his remarkably efficient filing system.

It's a 45-pound lard bucket, the type still familar in the country where provisions are bought for a long period of time.

Into the lard bucket goes every bill, receipt, invoice, and all the thousands and one other documents, large and small, that come across a busy country doctor's desk. At the end of the year, Dr. Nettles caps the bucket, marks the year on it, and stacks it at the end of the room where other lard buckets await his search for some needed small piece of information.

He rarely has any trouble finding what he wants, since the layers, much like geological strata, roughly correspond to the time of the year and he can usually guess close enough to get him near the right layer.

"Why," the visitor asks, "a lard bucket?"

"Because," Dr. Nettles says with that trace of a mischievous grin that lets you know you were set up for the question, "a syrup bucket wasn't big enough."



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As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

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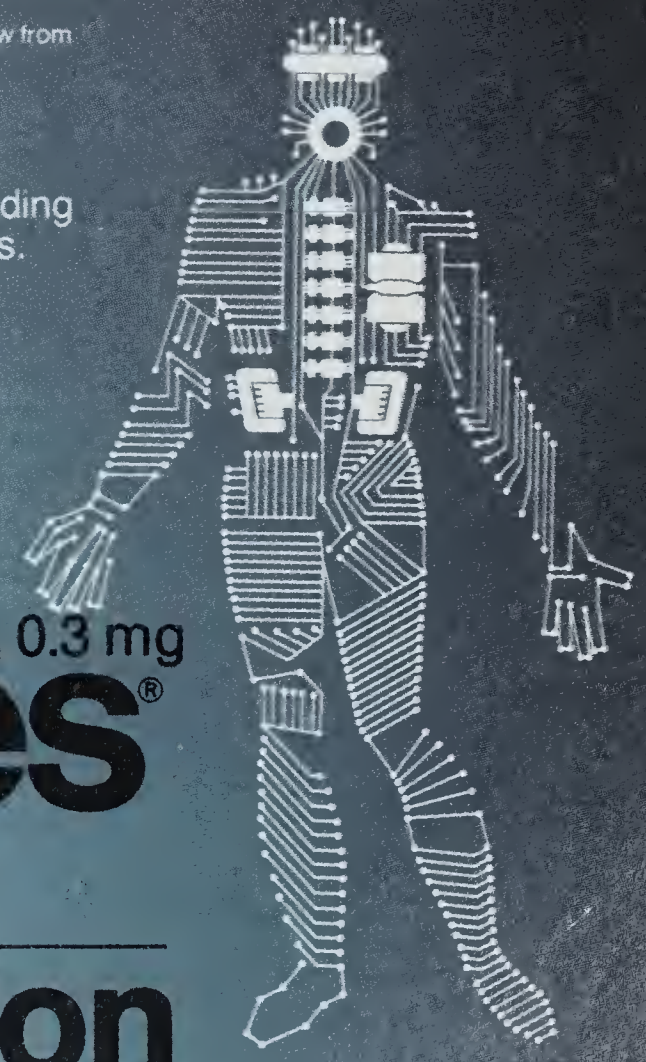
The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

*Central alpha-adrenergic stimulation decreases sympathetic outflow from the brain, as shown in animal studies.

1 Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.

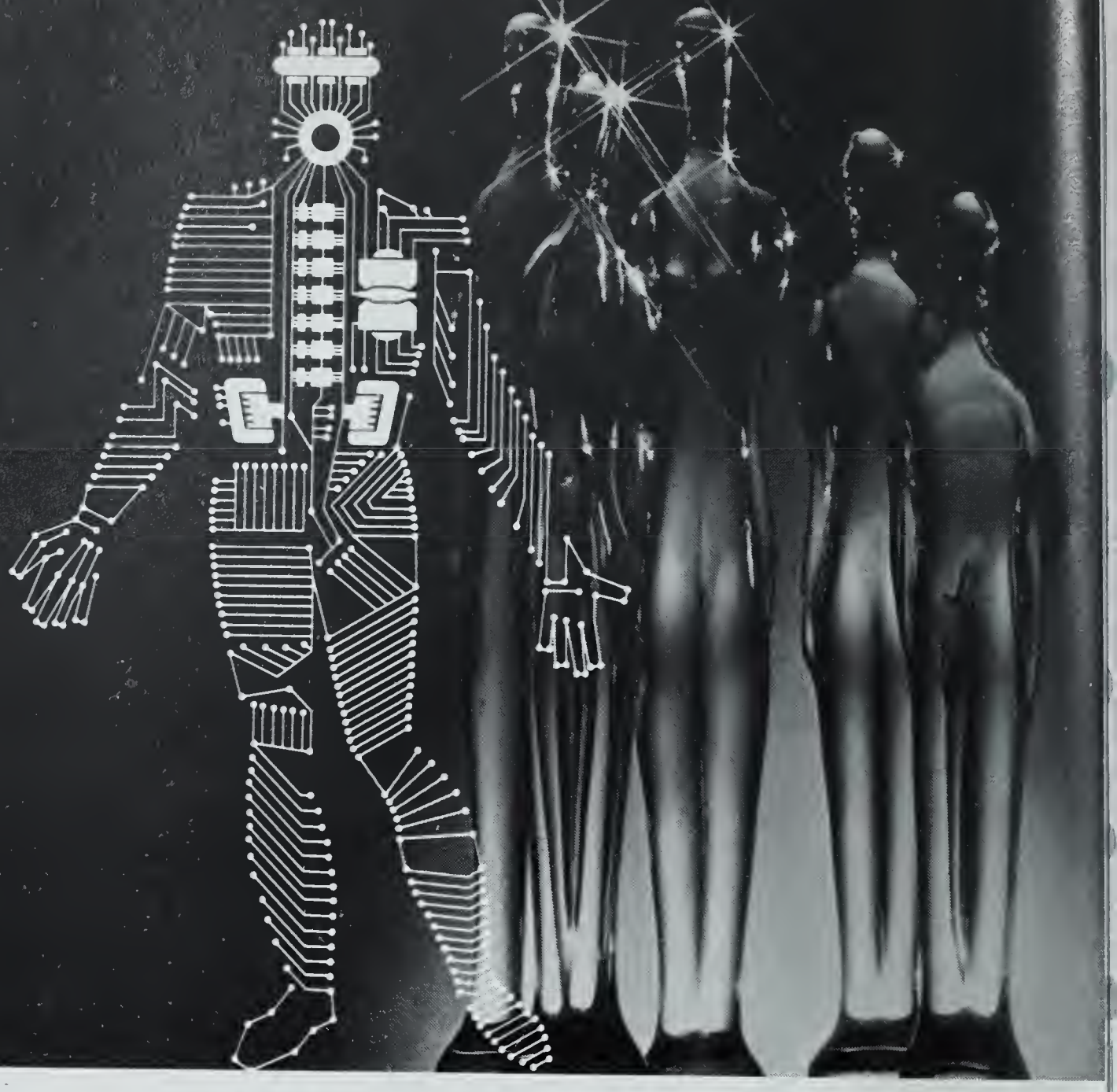
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- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
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Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefit from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg
Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

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(clonidine hydrochloride)
Tablets of 0.1, 0.2, 0.3 mg

Indication: The drug is indicated in the treatment of hypertension. As an antihypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

Warnings: Tolerance may develop in some patients necessitating a reevaluation of therapy.
Usage in Pregnancy: In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.
Usage in Children: No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

Precautions: When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician. Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine. Patients who engage in potentially hazardous activities, such as operating machinery or driving, should be advised of the sedative effect. This drug may enhance the CNS-depressive effects of alcohol, barbiturates and other sedatives. Like any other agent lowering blood pressure, clonidine hydrochloride should be used with caution in patients with severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care, patients treated with Catapres (clonidine hydrochloride) should receive periodic eye examinations. While, except for some dryness of the eyes, no drug-related abnormal ophthalmologic findings have been recorded with Catapres (clonidine hydrochloride), in several studies the drug produced a dose-dependent increase in the incidence and severity of spontaneously occurring retinal degeneration in albino rats treated for 6 months or longer.

Adverse Reactions: The most common reactions are dry mouth, drowsiness and sedation. Constipation, dizziness, headache, and fatigue have been reported. Generally these effects tend to diminish with continued therapy. The following reactions have been associated with the drug, some of them rarely. (In some instances an exact causal relationship has not been established.) These include: Anorexia, malaise, nausea, vomiting, parotid pain, mild transient abnormalities in liver function tests; one report of possible drug-induced hepatitis without icterus and hyperbilirubinemia in a patient receiving clonidine hydrochloride, chlorthalidone and papaverine hydrochloride. Weight gain, transient elevation of blood glucose, or serum creatine phosphokinase: congestive heart failure, Raynaud's phenomenon; vivid dreams or nightmares, insomnia, other behavioral changes, nervousness, restlessness, anxiety and mental depression. Also rash, angioneurotic edema, hives, urticaria, thinning of the hair, pruritus not associated with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryness, itching or burning of the eyes, dryness of the nasal mucosa, pallor, gynecomastia, weakly positive Coombs' test, asymptomatic electrocardiographic abnormalities manifested as Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, somnolence, diminished or absent reflexes and vomiting followed the accidental ingestion of Catapres (clonidine hydrochloride) by several children from 19 months to 5 years of age. Gastric lavage and administration of an analeptic and vasopressor led to complete recovery within 24 hours. Tolazoline in intravenous doses of 10 mg at 30-minute intervals usually abolishes all effects of Catapres, (clonidine hydrochloride) overdosage.

How Supplied: Catapres, brand of clonidine hydrochloride, is available as 0.1 mg (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. Also available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.
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The Star Tree

The "star tree" on the cover may not have been called that in the 15th Century when this woodcut, now in the Reynolds Historical Library, UAB, first appeared in a medieval book on medicinal herbs.

However, this was the period when European medicine had not yet freed itself of the influence of Galen, more than 1,200 years after his death. And it was also a period when the "doctrine of signatures" had begun to gain currency in the world of medicine, rising to period of greatest acceptance in the two centuries that followed, the 16th and 17th.



Supporters of the doctrine "expounded the principle that a natural object showing a detectable likeness to some feature of a human organ or disease must also possess deeper hidden properties that endow it with corresponding healing powers."

The quoted words are those of the late Samuel Vaisrub, M.D., from 1965 until his death Nov. 11, 1980, Senior Editor of the **Journal** of the American Medical Association and Associate Editor of **Archives of Internal Medicine.** In this splendid book, **Medicine's Metaphors: Messages and Menaces,*** Dr. Vaisrub writes of this belief:

"God has left specific signs in each of his creations indicating to what specific need it can be applied. When these signatures are recognized for what they are, they provide clues to concealed curative correspondences.

"Thus, poppy seed and walnut juice become remedies for brain disorders because the poppy and the walnut resemble a head. Liverwort becomes a cure for biliousness because it is shaped like a liver. Henna seed relieves toothache because the seedbag resembles a jaw. Spotted plants are good for diseases with spots, trefoils for diseases of the heart, and gummy plants for purulent sores. The poisonous mandrake (mandragora) acquires magic powers against insomnia, impotence, and infertility because it is a botanical replica of man.

"By virtue of color resemblance, saffron is a remedy for jaundice, a red rose for hemorrhage, and bloodroot for blood dysentery. Writes William Turner in the first English herbal, 1551: '. . . the red poppy-flower resembles at its bottom the settling of the blood in pleurisie and how excellent is that flower in disease of the pleurisie.' "

The "star tree" here reproduced may have had significance in the treatment of disease (whatever tree it was so idealized by the unknown artist of five centuries ago). For as Dr. Vaisrub continued:

"Signatures need not be confined to terrestrial objects. They also involve the heavens. Wrote Paracelsus, 'The stars of the firmament make letters and sentences.' Only if we understand the macrocosm do we understand the microcosm. . . .

"Thus, cosmic harmony is manifested in the relationship between motions of stars and behavior of individuals, in the correspondence between organs of the human body and the signs of the zodiac, and in the resemblances revealed or alluded to be signatures."

It has been suggested by writers other than Dr. Vaisrub that the doctrine of signatures is far from dead in the popular fancy, that it survives in many folk remedies and may be present in Laetrile, because of the resemblance, in the public mind, between an apricot pit and a tumor.

What magic powers were imputed to the star tree are unknown, but it may have been useful in "starry-eyed" euphoria or "ill-starred" romances leading to depression.

W. H. McD.

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A "RETRO-VIEW" OF THREE YEARS TEACHING ORTHOPEDICS TO FAMILY MEDICINE RESIDENTS

By R. Joe Burleson, M.D.*

In 1976 the teaching of Orthopedics in the Family Medicine Residency Program at The College of Community Health Sciences of The University of Alabama began.

A one-to-one teaching relationship between the orthopedic surgeon and the family practice resident was developed. This was accomplished by case presentations, problem discussion, and therapy outline of each patient seen in an ambulatory situation both at the Student Health Center of the University and the Capstone Medical Center of the College. This type of teaching is not difficult. The practicing preceptor only needs to verbalize his thoughts about the patient in a conversational manner.

The family practice residents, taking the required one-month of orthopedic rotation during their three years, usually accept this responsibility in the second, possibly the third, year of their tour of duty. At this point in their training, these are experienced young physicians who often embarrass the preceptor by their interest and knowledge in orthopedics and are always far ahead of such preceptor in the general realm of medicine.

Several differences from teaching in an orthopedic residency program became apparent. A concern early was to find texts or study material for the family physician in orthopedics that would be applicable to his care of mainly the "ambulatory" orthopedic patient. Most texts written in orthopedics are directed toward the orthopedic surgeon and are more detailed than the family physician would desire. These several years have led to the discovery of texts in "general" orthopedic care that have been invaluable during this month-tour of training. Those most used at the present time are:

Physical Examination of Spine and Extremities by Hoppenfeld;[1] *Fundamentals of Orthopaedics* by Gartland;[2] *Atlas of Plaster Cast Techniques* by Bleck;[3] and, *Orthopaedics in Primary Care* by Ramamurti, edited by Tinker.[4]

Another observation was evident. Unlike medical students and orthopedic residents, the resident in family medicine is not overly interested, and often is definitely uninterested, in spending much time in the operating room assisting in definitive orthopedic procedures. He needs and desires at this point of his training to be able to recognize which orthopedic case he can care for; and secondly, which case he must seek assistance in the care of; and thirdly; which case he should refer completely for definitive care to the hands of the orthopedic surgeon.

*Assoc. Prof. and Director of Surgical Education College of Community Health Sciences University of Alabama.

Therefore, the program was focused on out-patient clinic, office, and emergency room orthopedics rather than in-patient hospital and operative care. It is, however, important for the family physician to recognize and be wise about major orthopedic problems, if for no other reason than when and how to transport, and to be an intelligent resource of comfort to the patient's family in discussion of the case.

The residents often ask a concerned question, "Which fracture should I refer"? Certain guide-lines that in general would help them in this decision; such as compound fractures, those that involve joint spaces or epiphyseal lines, those that would require operative care, or those with neural or vascular injuries are outlined.

And yet these are not the specific answers that they desire, and over a period of time they actually begin to answer this question for themselves by stating that they would refer or seek help an anything that they did not feel competent in caring for. And these well-trained young people do respond to their limitations in speciality areas of medicine, including orthopedics.

Within the past three years some twenty-five young physicians have spent one or two months in orthopedics. The goal during this time is for them to learn how to do a competent orthopedic evaluation of extremities and back; to recognize orthopedic pathology (whether this be traumatic, infectious, neoplastic, or developmental); to learn the appropriate treatment for most orthopedic entities; and finally, in their practice to be able to care for those cases responsibly that he feels competent in treating.

A number of these physicians are now out in practice in different areas of Alabama from Athens to Foley, and Selma to York. These young people often call, describe an orthopedic situation, and ask for telephone advice. It is certainly with pride and pleasure that CCHS is able to continue to share in the professional life of these doctors in this way. It is recognized[5,6] that orthopedics of the ambulatory (office and out-patient hospital) variety is extremely important to the family practice resident's training. A sizable percentage of his practice later will fall into this catagory. Most of these cases he should be able to care for fully. Therefor, it was important for the program to know if it was fulfilling its responsibility to these young people, teaching them which case to treat, and how; and, which to refer.

Methods

Each of the physicians now in practice was contacted to evaluate his practice need and ability in fulfilling that need in his individual situation. It was felt that each would have somewhat different needs necessitated by

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Bronchitis and pneumania caused by *S.* pneumaniae (farmerly *D.* pneumaniae)

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Acute exacerbatian of chranic bronchitis caused by *H. influenzae**

*Though clinicol improvement has been shawn, bacteriologic cures cannat be expected in all patients with chronic respiratary disease due ta *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentory) infectians caused by Graup A beta-hemalytic streptacocci and staphylacacci, nonpenicillinase praducers.

URINARY TRACT INFECTIONS caused by *E. cali* and *P. mirabilis*. (This drug should not be used in any *E. cali* and *P. mirabilis* infections ather than urinary tract.)

NOTE: Perfarm cultures and susceptibility tests initially and during treatment to monitor effectiveness af therapy and susceptibility of bacteria. Therapy may be instituted priar ta results of sensitivity testing.

Contraindications Contraindicated in individuals with history af an allergic reaction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

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Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Pralanged use af antibiatics may promate avergrawth af nansusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Cotegary B. Repraductian studies perfarmed in mice and rats at dases up ta 10 times the human dase revealed na evidence af impaired fertility or harm ta the fetus due ta cyclacillin. There are, however, no adequate and well-contralled studies in pregnant women. Because animal reproduction studies are nat olways predictive af human response, use this drug during pregnancy anly if clearly needed.

NURSING MOTHERS: It is nat knawn whether this drug is excreted in human milk. Because mony drugs ore, exercise cautian when cyclacillin is given ta a nursing waman.

Adverse Reactions Oral cyclacillin is generolly well tolerated. As with other penicillins, untaward sensitivity reactions are likely, particularly in those wha previausly demanstrated penicillin hypersensitivity ar with histary of allergy, asthma, hay fever, or urticaria. Adverse reactians reparted with cyclacillin: diarrhea (in approximotely 1 out of 20 patients treated), nausea and vomiting (in appraximately 1 in 50), and skin rash (in approximotely 1 in 60). Isalated instances af headache, dizziness, obdaminol pain, vaginitis, and urticaria have been reparted. (See WARNINGS) Other less frequent adverse reactians which may occur and are reparted with ather penicillins are anemia, thrombocytapenia, thrombocytapenic purpura, leukapenia, neutrapenia and easinaphilia. These reactians are usually reversible on discantinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reparted.

As with antibiatic therapy generally, cantinue treatment at least 48 ta 72 haurs after patient becomes asymptamatic or until bocterial eradicatian is evidenced. In Graup A beta-hemalytic streptacaccal infections, at least 10 days' treatment is recommended ta guard against risk of rheumatic fever or glamerulanephritis. In chranic urinary tract infectian, frequent bacterialagic and clinical appraisal is necessary during therapy and possibly far several manths after. Persistent infectian may require treatment for several weeks.

Cyclacillin is nat indicated in children under 2 manths of age.

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Chranic Infectians	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 ta 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

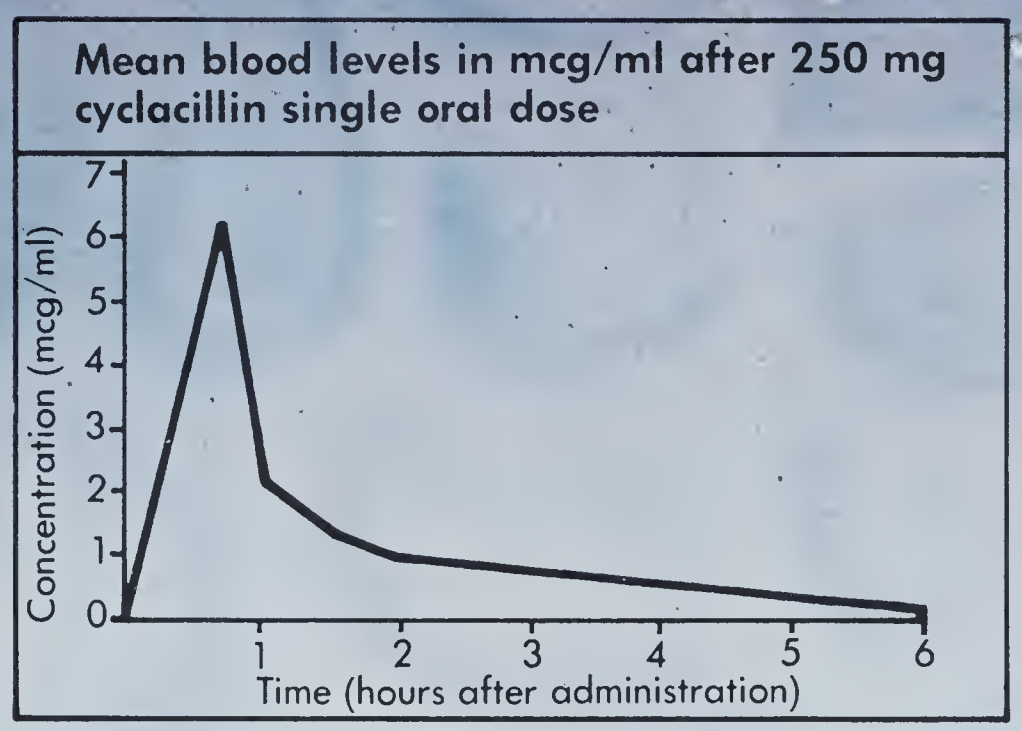
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size or population of the area, and the nearness to a secondary of tertiary medical center. Also it was realized early that *all* needs of *each* would not be satisfied, but the hope was that the results would give the *most* to the *most*.

A questionnaire (Fig.1) was referred to each past-resident. This noted ten categories of treatment areas including contusions, sprains and strains, dislocations, fractures, bursitis and tendonitis, sports medicine, arthritis, back problems, adult foot problems, and children's foot and leg problems. It asked that these be numbered from one to ten in order of the frequency seen in his practice. Also, it asked for a tabulation of the estimated percentage of these cases treated and finally an estimate of the percentage of orthopedics seen in his total practice. Critical questions were also included. "Do you feel CCHS prepared you in orthopedics for your practice"? Further he was asked to define the areas in which he felt qualified and those that he did not feel that he had received adequate preparation. Finally, he was requested to offer advice as to how the program might be improved for future orthopedic training.

As matter of explanation the treatment of generalized arthritis is accepted as a medical rather than an orthopedic field of care. However, the care of the monoarticular problem, whether infectious or traumatic, usually falls well into the realm of orthopedics.

Questionnaire

Name _____

Community Name_____ Population_____

Please number from 1 to 10 these types of cases in order most frequently (a) seen and (b) cared for in your practice (1 being *most* frequent, etc.)

	(a) Seen	(b) Cared for
Contusions	_____	_____
Sprains & Strains	_____	_____
Dislocations	_____	_____
Fractures	_____	_____
Bursitis & Tendonitis	_____	_____
Sports Medicine	_____	_____
Arthritis	_____	_____
Back problems	_____	_____
Adult Foot problems	_____	_____
Children's foot & leg problems	_____	_____

What % of *all* above cases do you treat? _____

What % of *all* above cases do you refer? _____

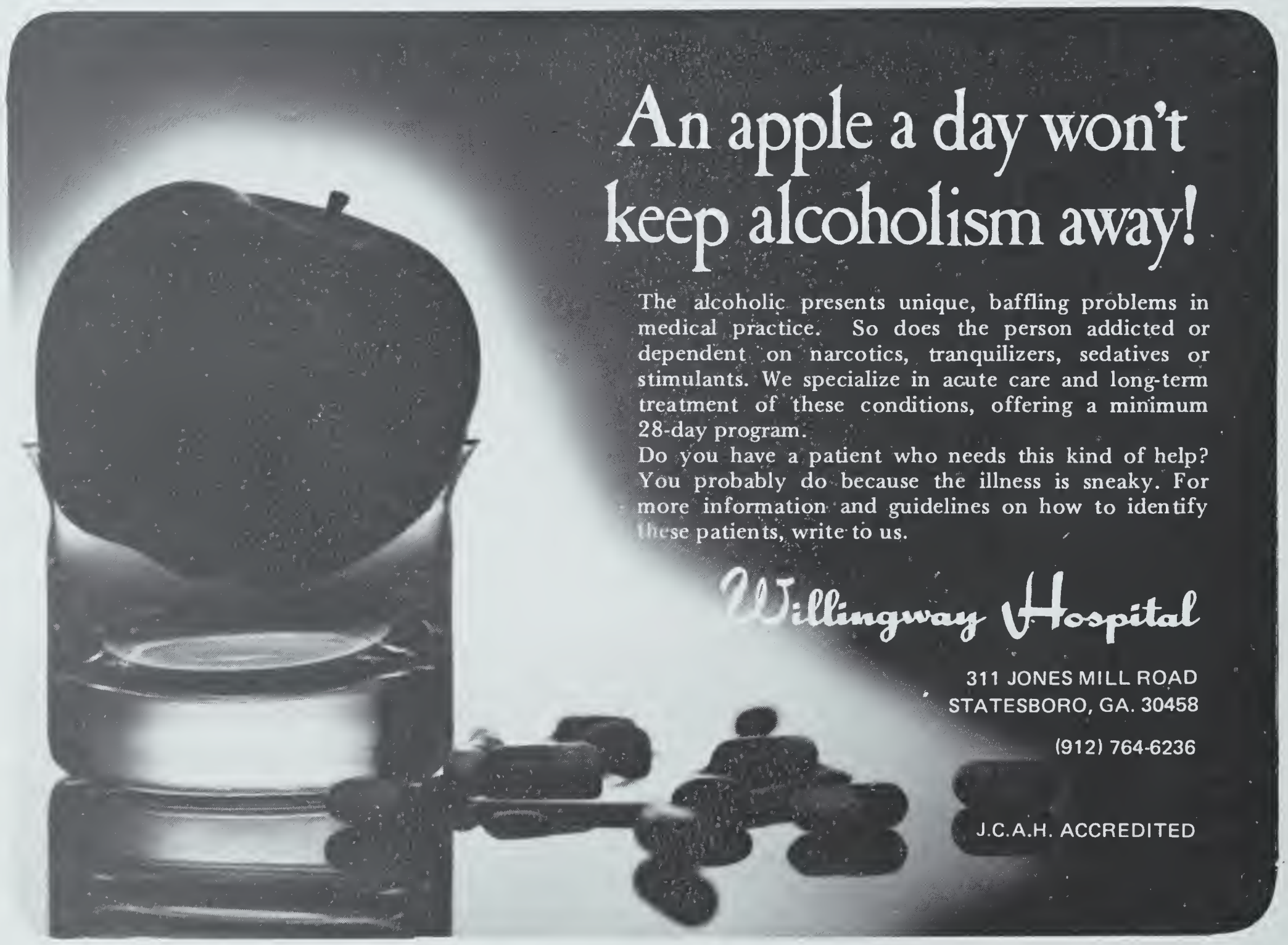
What % of your total practice is orthopedics? _____

Do you feel CCHS prepared you in orthopedics for your practice?

Yes? Identify areas _____

No? Identify areas _____

How could we modify our program to aid further residents at CCHS in this area of training?



Twenty-one past-residents now in practice were contacted with 18, or 90%, of these returning a completed questionnaire.

Discussion and Summary

Certainly no conclusions can be drawn from this survey which is limited in scope and number, but some impressions seem evident. The results showed, as others[5,6] have, that orthopedics of the "office type" (including mild to moderate trauma) is important in the family physician's practice. In the returned responses this varied from 5-30% of the total patients, an average of 15%. Secondly, these reports reveal that 85% of all cases are treated by the family physician and deserve to be treated well.

The population area of their practices varied from 10,000 to 185,000 but most of these found themselves in areas of population of 10,000-30,000. This might have indicated that most of their needs in the field of orthopedics would be similar. However, different locations did dictate different requirements in the practice of one doctor as compared to another.[7] This was evident in the retured questionnaires. As noted from the chart (Fig. 2) almost in every category, some physician has designated an area of care as number 1-2 (the most frequent) and a different physician has placed it in 9-10 (the least frequent). Only in the treatment of contusions was this not true.

It was interesting to note that dislocations were listed in a less frequent (seen and cared for) class than fractures. This can be explained probably by two assumptions. The dislocation carries with it a degree of deformity which the patient may view as more serious and wish to have it seen primarily in a more specialized setting; whereas, many fractures with undisplaced clinical attitudes do not show such deformity and are therefore seen in the primary physician's office. Secondly, again because of the deformity and the "active" manipulations required, the family physician may feel that this "active" treatment is something they should refer elsewhere. Minor fractures with undisplaced attitudes certainly should be cared for adequately by the primary physician on an out-patient basis.

It is evident that perhaps half of the categories covered including arthritis, sprains and strains, back problems, contusions, and bursitis and tendonitis were seen and cared for significantly more frequently than the more major or specific orthopedic problems of fractures, dislocations, sports medicine, adult foot problems, and children's leg and foot developmental problems (Fig. 3). Also it would seem from the results of the questionnaire that these ten categories do cover the scope of orthopedics as seen by the Family Physician. None of the returning blanks indicated other areas.

As a final assay of the program the strong points felt to be present were fairly well disbursed through the ten categories outlined. The areas indentified as without full preparations and recommended for increased exposure were x-ray interpretation, laboratory interpretation, and physical therapy (including gait and exercising programs). One response indicated that exposure to the field of podiatry might be helpful. Another summarized by saying "Out-patient Orthopedics is a very important part of the practice of the family practitioner in my opinion. The emphasis on management of common problems encountered should be continued, and the rotation should be definitely *required* for each resident." Still another statement indicated that the orthopedic rotation is so significant that it should cover a period of two months rather than one.

The over-all consensus of the program seemed to be summed up by one quotation "CCHS prepared us for all that we should be taking care of". This statement seemed to satisfy the initial goal.

The cooperation of the past-residents in this early survey of orthopedics at the College of Community Health Sciences on The University of Alabama has been most complete and the information gleaned from their reports will certainly aid in further teaching efforts.

Catalogue Of Individual Response

Diagnosis	Residents																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Sprains & Strains	4	2	4	2	3	4	1	9	2		1	3	4	8	3	4		2	5		1
Dislocations	7	8	10	7	10	10	9	3	9		10	8	9	4	5	10		10	10		10
Fractures	6	6	7	6	7	6	5	2	7		9	9	6	7	4	6		9	6		4
Bursitis-Tendonitis	2	4	3	4	5	1	4	7	5		5	1	5	5	3	3		5	3		8
Sports Medicine	8	9	6	10	9	9	6	6	6		10	2	7	3	5	7		6	9		6
Arthritis	1	5	1	5	1	2	8	8	1		4	4	2	9	1	1		1	1		7
Back Problems	5	1	2	1	2	3	2	10	3		4	6	3	10	2	2		3	2		2
Adult Foot Problems	10	10	9	8	6	8	7	1	8		10	7	10	1	8	8		8	7		9
Children's Foot & Leg Problems	9	7	8	9	8	7	10	5	10		9	10	8	2	6	9		7	8		5
Contusions	3	3	5	3	4	5	3	4	4		3	5	1	6	3	5		4	4		3

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Schedule

Sunday, February 1, 1981

1:00 - 4:00 p.m.
Arrival and check-in

6:00 p.m.
Reception with Alabama Congressional Delegation

7:00 p.m.
Dinner with Alabama Congressional Delegation

Monday, February 2, 1981

8:00 a.m.
Briefing from American Medical Association Washington Staff

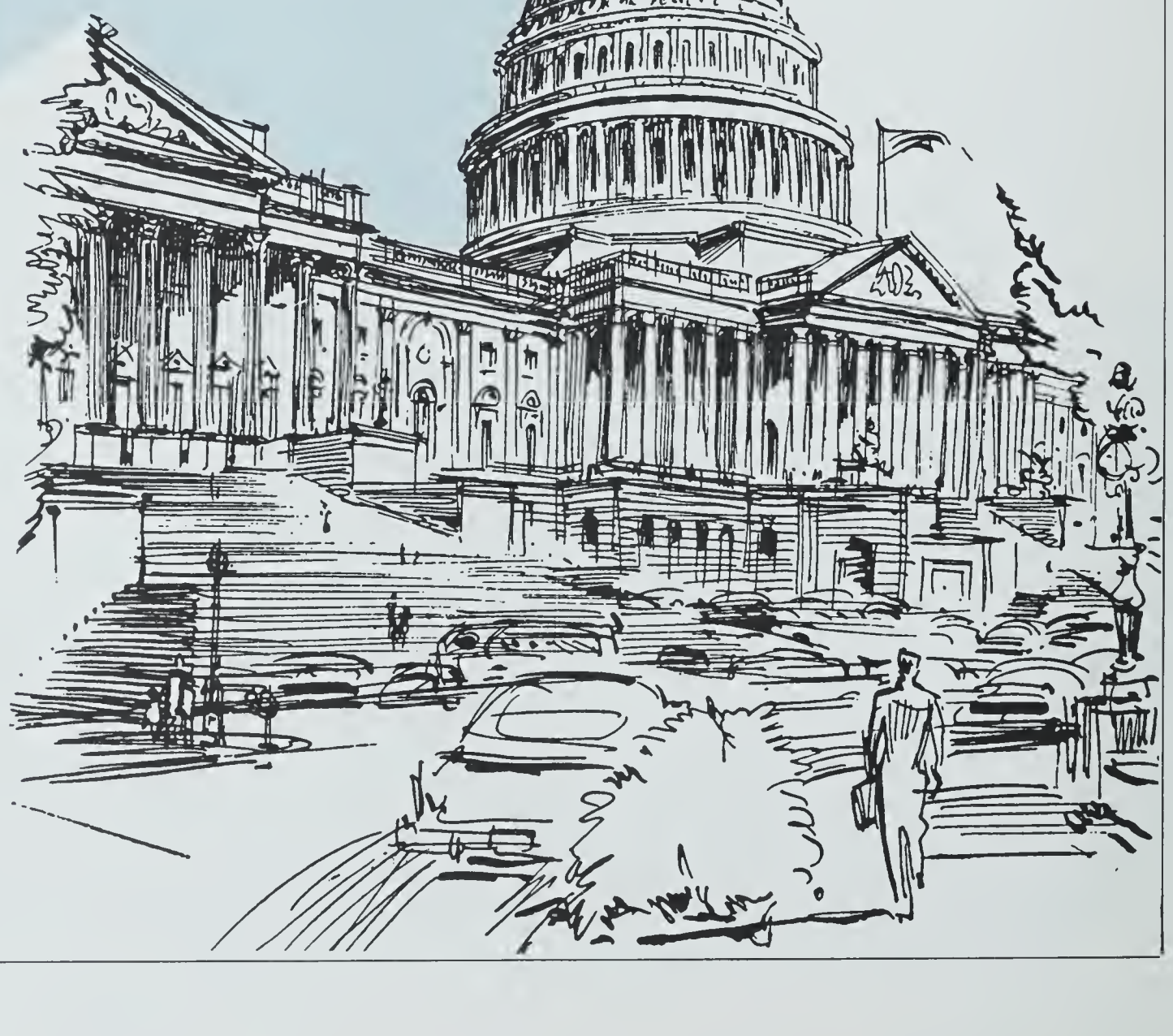
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RENAL ARTERY OCCLUSION BY THE RADIOLOGIST: CLINICAL APPLICATIONS

by

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Montgomery, Alabama

ABSTRACT

Three separate case reports are presented, each illustrating a different disease entity which can be helped by the technique of renal artery occlusion by percutaneous catheter methodology. A list of indications for renal artery occlusion is given. Discussion of methods and problems is given. Illustrations accompany each of the three case reports.

INTRODUCTION

The technique of renal artery occlusion can be of use in multiple clinical situations, both pre-operatively, and as a primary method of "angiographic nephrectomy" for proper indications. Case reports and discussions will serve to show the wide variety of this relatively new, effective technique. It should be noted at the onset that this procedure is a permanent, irreversable occlusion with resultant renal infarction, and patient selection is therefore similar to that used for nephrectomy by surgical means.

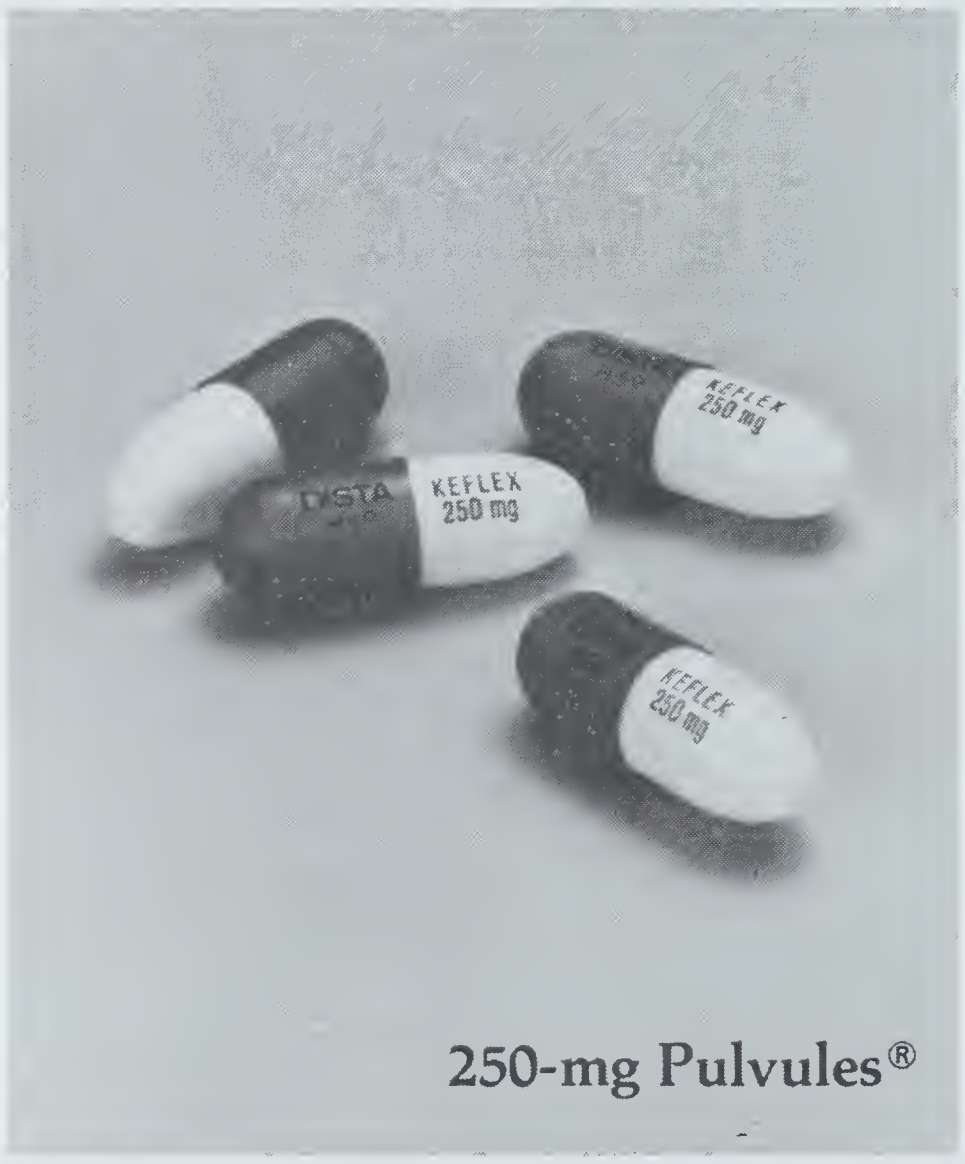
Case report 1: R.T., a 50-year-old white male, was admitted for epistaxis. Pertinent clinical history included a recent 20-pound weight loss, and a past history of high blood pressure. Chest x-ray taken on admission was abnormal, with multiple pulmonary nodules noted. An intravenous urogram with nephrotomograms was performed, revealing a large right renal mass which distorted the collecting system. Subsequent arteriography revealed the mass to be a solid, highly vascular tumor, with Epinephrine enhanced study showing a lack of contraction of the tumor vessels. The renal vein was patent, and the tumor extended through the capsule of the right lower pole, with the tumor measuring approximately 10 centimeters in diameter. Angiographic diagnosis was renal cell carcinoma.

A nephrectomy was planned, and consultation with the urologist resulted in a pre-operative renal artery occlusion to facilitate the procedure. A second arteriographic procedure was done with a selective catheterization of the right renal artery. Gelfoam was then introduced through the renal artery catheter to completely occlude the right renal artery during the procedure. Surgery was performed later, revealing complete occlusion of the right renal artery. Pathologic diagnosis was renal cell carcinoma with recent thrombus within the renal artery and with marked necrosis of the tumor and surrounding renal parenchyma. Illustrations 1 and 2 show the kidney before and after embolization.

Case report 2: G.H., a 17-year-old white female, presented with pain in the right lower quadrant, and massive hematuria. Immediate cystoscopy and right retrograde pyelogram revealed the bladder to be filled with blood clots and revealed a large amount of blood coming from the right ureter. Despite intravenous fluids and

*Clinical Instructor, Department of Medicine, University of Alabama in Birmingham.

easy to take



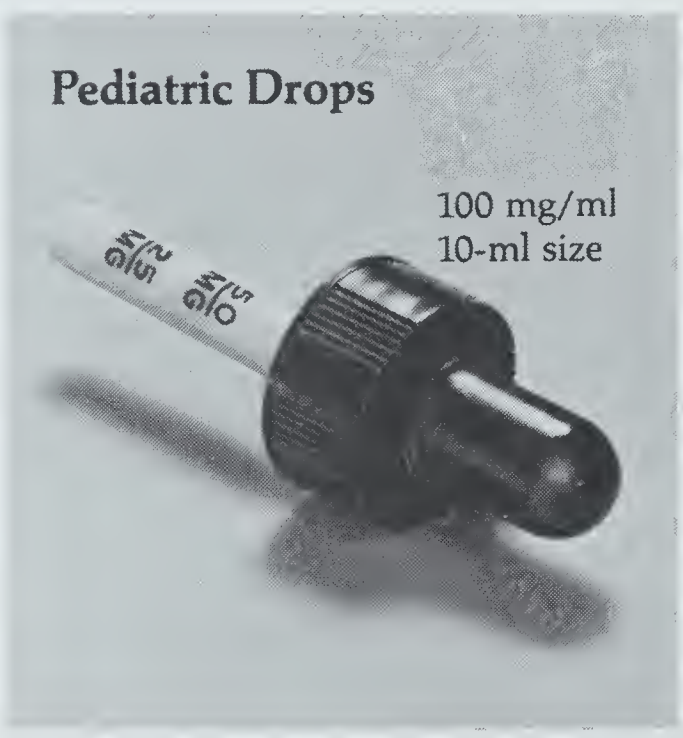
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transfusions, blood pressure levels dropped to 50 systolic, and emergency right renal arteriogram was performed. The arteriogram revealed a large right renal arteriovenous malformation which involved the middle portion of the kidney. Leaving the catheter in place, consultation with the urologist was done, and a decision was made to embolize the right renal artery. The decision was made in part because of the size and central location of the arteriovenous malformation and in part because of the threat to life if the bleeding was not stopped quickly. The patient was in severe hypotension during the arteriogram despite blood being given throughout the procedure. Consequently, right renal embolization was performed with Gelfoam. The bleeding stopped after the procedure, and the patient stabilized after seven units of packed cells were given. The following day, a nephrectomy was performed. Pathology report confirmed a large arteriovenous malformation with complete occlusion of the right renal artery. One week later, the patient was discharged active and well. Illustrations 3 and 4 show the kidney before and after embolization.

Case report 3: A.F.J., a 32-year-old white female, was admitted because of progressive protein loss from proteinuria. The patient had chronic glomerulonephritis which had progressed to end stage renal disease, requiring dialysis for the previous two years. Despite the lack of effective renal function, the patient continued to produce one liter of urine per day which contained greater than 10 grams of protein each 24 hours. This resulted in severe "internal malnutrition" with resultant serum albumin levels below two milligram percent for the previous three months. Consultation between the radiologist, the nephrologist, and the transplant surgeon was done, with resultant decision to therapeutically embolize the renal arteries instead of surgical nephrectomy.[1,2] The bilateral nephrectomy done by surgery might have been associated with greater morbidity because of the patient's nutritional condition. Bilateral renal artery embolization with subtotal occlusion was then performed without complications. The patient did well following the embolization requiring analgesics for three days because of moderate flank pain. Following this, the patient was discharged. Urine production diminished on the day of the procedure and the proteinuria was no longer significant. Six weeks after embolization, serum albumin had risen to three milligrams percent. Illustrations 5 and 6 show the kidney before and after embolization.

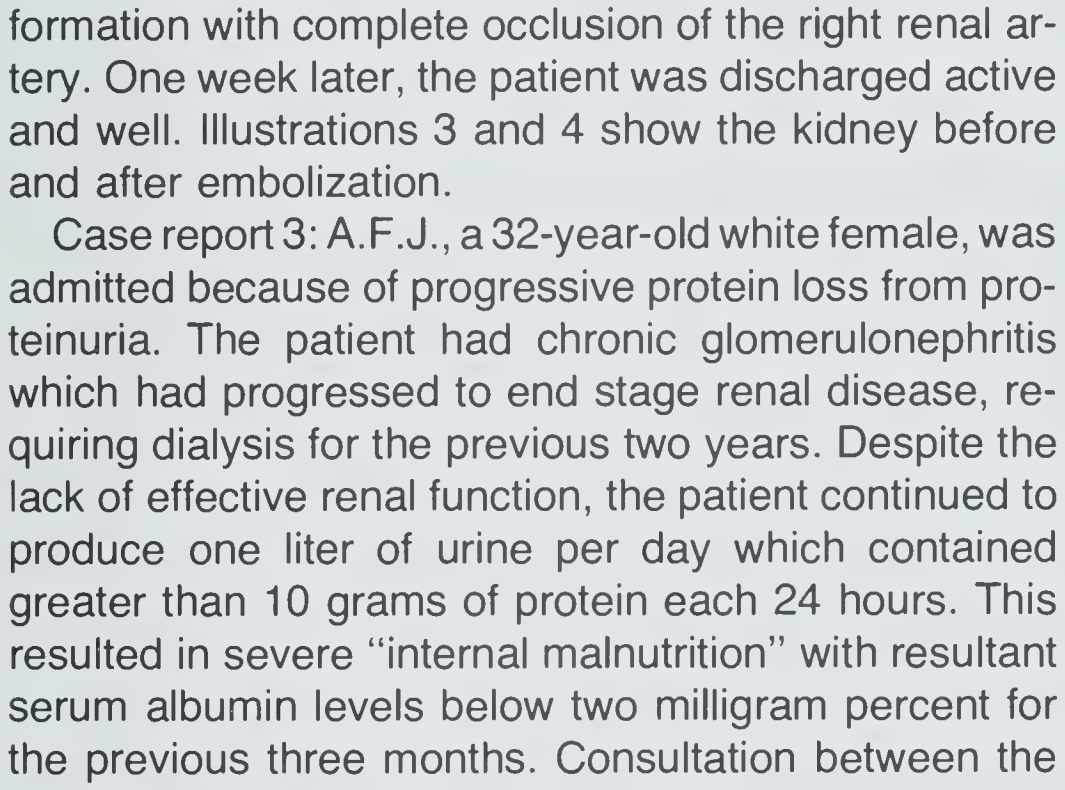


Illustration No. 1

The arteriogram reveals abnormal tumor vessels in a large adenocarcinoma of the right kidney. Injection is made in a large branch of the renal artery supplying the lower pole of the right kidney.



Illustration No. 2

Illustration #2 shows the same kidney after embolization. Contrast is seen in the superior branch of the large right renal artery and in the inferior branch of the right renal artery. The contrast remains in the artery because it is mixed with the Gelfoam during the embolization. The contrast is not being injected through the catheter at the time of the x-ray.

DISCUSSION: The following indications have been reported in the literature for renal artery occlusion by interventional angiography with embolization:

1. Control of hemorrhage.
2. Shrink or infarct tumor masses.[3,4]
3. Closure of arteriovenous fistulae.[5]
4. Ablate aneurysms.
5. Ablate kidneys in end stage renal disease.
6. Control proteinuria.[1,2]
7. Pre-operative management to facilitate surgery.[3,4,6]
8. Ablate nonfunctioning kidney which is producing renin for control of high blood pressure.

Methods of occlusion include embolization with Gelfoam, embolization with metal coils, brushes, or detachable balloon catheters, and transcatheter electrocoagulation.[8,9,10] Risks of the procedure include all of the known risks of angiography (bleeding, allergic reaction, arrhythmias, embolization, catastrophic bad result, death, etc.), and also the danger of embolic material entering vessels not intended to be embolized. Patients who have had large kidneys embolized will have fever,

flank pain (often severe) and have a risk of infection in the infarcted tissues. The degree of fever and flank pain are dependant in part upon the amount of renal tissues infarcted. Proper preprocedural consultation with attending physician and the consulting surgeon should always be done. Complete explanation to the patient of the risks of the procedure is also necessary, of course.

In summary, the method of renal artery occlusion can be helpful in a wide variety of clinical situations. A review of the indications and illustration of several procedures are given.

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Illustration No. 4

The renal artery is still seen filled with Gelfoam and contrast material after embolization. No flow is going through the right kidney or the arteriovenous malformation.

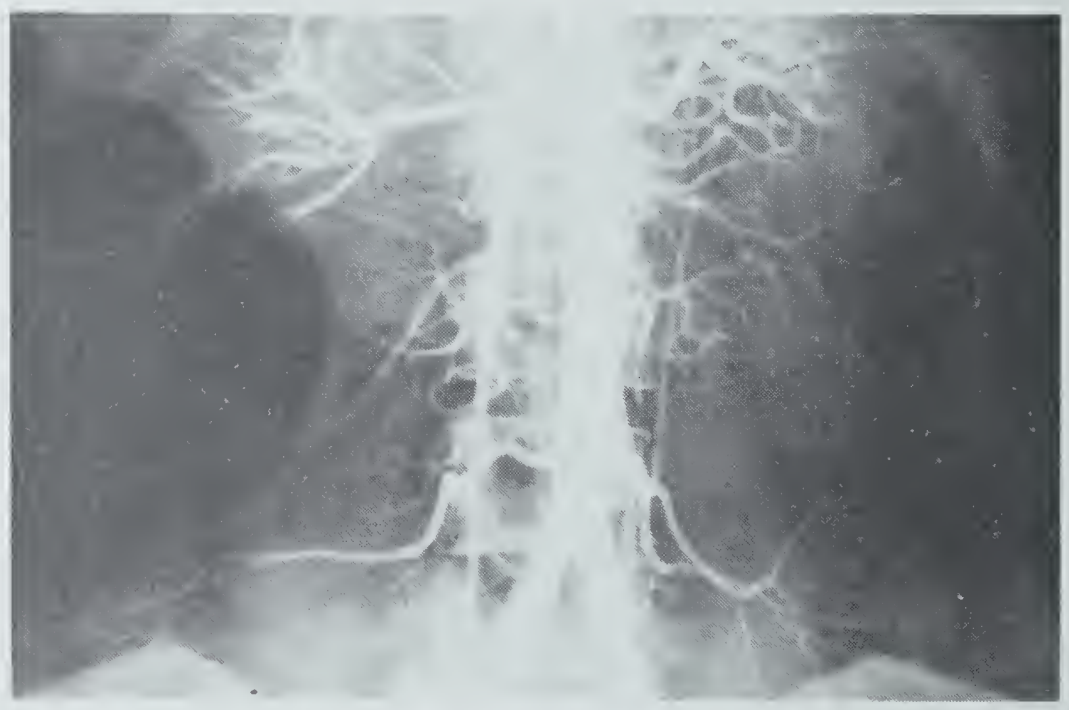


Illustration No. 5

A flush aortogram reveals arteries supplying both kidneys.



Illustration No. 3

Right renal arteriogram shows a large arteriovenous malformation in the mid portion of the superior half of the right kidney.



Illustration No. 6

A film of the abdomen shows contrast material and Gelfoam in the arterial system of both kidneys after embolization. (The Gelfoam is mixed with contrast material before embolization so that it can be seen after the procedure.)

In Hypertension*...When You Need to Conserve K^+

Every Step of the Way



Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K^+ supplement or K^+-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K^+ supplement or K^+-sparing agent).

Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. A brief summary follows:

* **WARNING**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in postsympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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NEOSPORIN® Ointment

(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

works just as well in their homes.

- It's effective therapy for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses.
- It provides broad-spectrum overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep.



- It helps prevent topical infections, and treats those that have already started.
- It contains three antibiotics that are rarely used systemically.
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NEOSPORIN® Ointment—for the office, for the home.

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

Wellcome / **Burroughs Wellcome Co.**
Research Triangle Park
North Carolina 27709

STATEMENT FROM MASA'S COMMITTEE ON MATERNAL MORTALITY

The Maternal Mortality Committee is responsible for reviewing all maternal deaths and determining the best methods to lower the maternal death rate.

As has been stated previously, this is not a policing committee and complete anonymity is reassured. In the past year the response and cooperation of the physicians who had the unfortunate experience of having a maternal death has been excellent. This cooperation has enabled the committee to get a clear picture of events surrounding each death and thus to be more able to make recommendations.

During the past year there were 12 maternal deaths and 59,409 live births giving a maternal rate of .0002. The following is a summary of these deaths:

2—related to amniotic fluid embolus.
2—embolus secondary to blood clot.
5—pregnancy induced hypertensive cardiovascular disease.
1—to cardio-myopathy.
1—unrelated to pregnancy.
1—information not obtainable.

The value of summarizing and presenting these deaths can only be achieved if there is a positive action program. The committee feels that this can be realized through educational programs aimed at both the physician and the patient. In several cases had the patient presented herself sooner for treatment the problem may have been alleviated. Also the physician's awareness and foresight to potential problems might be sharpened so that he might be better prepared to successfully handled those situations which do arise in the medical care of the pregnant female.

John B. Howell, M.D.
Past Chairman, Committee on
Maternal Mortality
Medical Association of the
State of Alabama

CLINICAL SUMMARY

Age 19, black female, never married, primiparous patient came in the hospital having early labor symptoms. She rapidly progressed to full dilatation and full effacement but the head descended only to the Ischial spines at about 0 to +1 station. When the patient was carried to the delivery room she was given 12 mgm of Pontocaine intra-spinally along with Q.S. ed up to 2cc. with 10% heavy water as a spinal. She sat up for approximately a minute, was laid down, and her BP was monitored and it never varied from about 140/90. All of this time she was being preped for delivery and was up in stirrups. Some dystocia was seemingly detected when she was put on forceps. About 18 minutes after she had her spinal she suddenly stated that she could not breathe. It was first thought that this was anxiety, and she was re-assured and then about 20 minutes after she suddenly ceased breathing. The physicians in attendance then started cardiopulmonary resuscitation with all the appropriate IV medications including Sodium Bicarb, Lidocaine, Atropine, Solu-Medrol 1 gram, repeat Sodium Bicarb in the amount of 3 to 4 Ampules and electro shock because of ventricular fibrillation. She also had an intratracheal tube and this was connected to Ambo bag with oxygen. Resuscitation was attempted for approximately an hour, and it was felt that the baby might be surviving since she had cardiopulmonary resuscitation, so an emergency section was done but the fetus was dead and could not be resuscitated. The patient during the process of intubation vomited and must have aspirated some during this time as well.

Death appears related to intrapartum massive amnoinic fluid embolization.

CLINICAL SUMMARY

29-year-old black, married female (G5P3) was first seen for prenatal care at 2 months gestation. She had a history of nephrosclerosis, staghorn calculus of right

kidney, and recurrent UTI's. Twins were delivered at 34 weeks gestation (3 lb. 14oz/3 lb. 1oz.). This patient was seen 2 times postpartum in the office. At approximately 6 weeks post partum the patient was seen in the emergency room with acute pyelonephritis and treated. Five hours later patient died with no chest pain at home.

Autopsy showed thrombo-embolism with infarct of the right and left lung.

CLINICAL SUMMARY

32-year-old black gravida 3, para 1, abortions 2, gave history of fibroid of the uterus at the cervical outlet. Patient was to be scheduled for Cesarean Section delivery due to fibroid of the cervix; however, at seven months of pregnancy she went into spontaneous labor and delivered spontaneously a three 1b. infant with an apgar of 9. She delivered precipitously in the bed and placenta was delivered without difficulty.

Patient discharged to home after three days and returned to the emergency room on the same date complaining of severe headache and was found to have blood pressure of 160/90. BP previously in the hospital ranged from 128/88 to 150/90. Patient was readmitted to the hospital and given medication for blood pressure which was undefined in the summary. Patient improved. Five days later she had apparently stabilized but suddenly began to hemorrhage from the mouth and nose with BP normal. It was felt that patient had D.I.C. Appropriate tests were made and this was confirmed. Patient became unconscious and was seen by a neuro-surgeon, cardiologist, hematologist and pathologist, all of whom felt patient had disseminated intravascular coagulopathy and treatment was started.

It was felt patient had large intracerebral bleeding. On pelvic examination the fibroid was still greatly enlarged. No placental tissue or blood clot was found in the uterus. It was felt there was a large hematoma in the fibroid and the D.I.C., was caused by hematoma in the fibroid. Patient continued downhill and expired ten days after delivery.

It was felt the cause of death was cerebral vascular accident with hypertension possibly related to D.I.C. No post was obtained.

CLINICAL SUMMARY

29-year-old white female, gravida 3, para 1, abortions 1, had routine prenatal care under private physician with no complications. At the time patient was four days over-due she suddenly became unconscious and had acute cardiac arrest at home. She was given CPR in ambulance on the way to the hospital, but was DOA at the emergency room of the hospital. CPR was continued and abdomen was opened and a fetus extracted. The fetus lived 24 hours. The patient was actually DOA at the emergency room.

Patient had a past history of having had D&C seven years prior as an elective abortion. Five months prior to demise she had a melanoma of the right leg excised which was found to be malignant. Past history otherwise negative.

Autopsy revealed idiopathic hypertrophic subaortic stenosis with chronic passive congestion of the liver. No heart murmurs had been detected previously on first examination at the doctor's office or had ever been reported at any time prior to that visit.

CLINICAL SUMMARY

19-year-old GI PO Black female unmarried, who did well in her pregnancy until 38 weeks gestation. At that time her weight was 256 and BP 138/88. One week later her BP was 160/100 and she was treated conservatively. The following week BP was 180/120 and weight was 275, and the urine albumin was 4+. She was then referred to a larger hospital for treatment of severe pre-eclampsia. On admission there—BP 200/140, pulse 100, 4+ pitting edema, retinal edema, 3+ reflexes, 4+ albuminuria, hgb 9.4 gms.—other lab values were within normal limits. She was given Morphine sulfate and $MGSO_4$ and put at bedrest. There were no signs of labor and the cervix was closed and 50% effaced. The patient's condition in general did not improve and the urine turned grossly bloody. C-section was planned approximately 12 hours after admission but because of inability to ventilate the patient or get in an endotracheal tube, the patient's condition further deteriorated and in spite of resuscitation efforts the patient died undelivered.

CLINICAL SUMMARY

24-year-old anemic, asthmatic, toxic GII PIII Ao black female married who expired 10 days after delivery of 2 females 40 weeks gestation, delivery of 14 minutes apart.

The patient had multiple prenatal visits. Her doctor treated her anemia, asthma and preeclampsia. The patient was hospitalized in labor, progressed in labor was transferred to referral hospital because of toxemia. The twins were delivered. The patient had stayed toxic for approximately 48 hours, she improved and was discharged 1 day later improved to return to her regular doctor, then home.

Patient's husband stated patient fell to floor dead 7 days later following several days of back pain complaints, according to patient's physician. Husband refused autopsy.

CLINICAL SUMMARY

24-year-old black female with history of intravenous drug abuse had been hospitalized one month prior with suspected pulmonary embolus. She had been discharged on Coumadin which she was taking at the time

of her present illness. The patient was seen in the emergency complaining of abdominal pain and while being examined was noted to have a seizure, then cardiopulmonary arrest. After a stormy resuscitation, a hemoperitoneum was identified and the patient was taken to surgery. An unruptured ectopic with 1500cc hemoperitoneum was discovered and left salpingectomy was performed. She never recovered consciousness following her arrest and expired 11 days later.

Cause of death was listed as anoxic encephalopathy, post cardiac arrest.

CLINICAL SUMMARY

31-year-old black female para 2-0-2 was found to have congestive heart failure at 32 weeks gestation. She was managed with Digoxin and diuretics with good results. She delivered vaginally at term with acute pulmonary edema complicating her delivery. She had multiple admissions over the next several months for low output cardiac failure. Her terminal admission covered three weeks with multiple medical problems including pulmonary embolis, further congestive failure and finally hepatic failure. Her initial congestive heart failure was felt to be secondary to para-partum cardiomyopathy.

CLINICAL SUMMARY

30-year-old white female primagravida with a blood type of O RH negative DU negative who exhibited no RH isommunization and who was followed by a private physician. Approximately 22 weeks menstrual gestational age the patient was noted on sonar to have a twin pregnancy and her blood pressure at that time was 128/74. Pregnancy progressed uneventfully, and her blood pressures remained normal and weight gain was not excessive. 30 1/2 weeks gestational age the patient's BP was noted to be 150/98, and she had no proteinuria nor any other complaints. One week later the BP was noted to be 148/98 with still no proteinuria. 33 weeks gestational age the patient's BP was noted to be 146/100 and repeat ultrasound revealed BPD of 8.2 cm. on one fetus equaling to 33.6 weeks and on the other fetus 7.6 cm. equaling to 30.8 weeks. 34 weeks gestational age the patient's BP was noted to be 158/104, and she then exhibited 2+ alb. Recheck of her BP that same day revealed 160/110, and she was admitted to the hospital as she already had been treated conservatively with bed rest and the process continued to worsen. On the patient's first hospital day she was treated with bed rest and Phenobarb 30 mg. t.i.d. and HS. She was given Riopan for heart burn type symptoms. Upon admission to the hospital the patient's voided urinalysis revealed a 3+ proteinuria and 8-10 WBC and 1-2 RBC per HPF. The admitting hemogram revealed a hgb. of 12.3 and otherwise was WNL. Coagulogram was WNL. A 24 hour urinary protein revealed 1.98 per 24 hours with 1100 cc. volume. RPR was non reactive and clean catch urine at that time was sterile. Repeat urine protein revealed 2+ proteinuria. Creatitine clearance ordered on that day revealed 45 ML per minute with a total volume of 2890 ML per 24 hours and a calculated normal of 80-180 ML per minute. The next day after hospitalization the patient's BP was noted to be 130/80 and 120/80 and late in p.m. 146/98 and BP over the ensuing few days seemed to be responding slightly to bedrest and the Phenobarb and staying mostly at the upper limits of normal. OCT was done and was read as negative for each fetus. Patient's BP begun elevating again somewhat and seven days prior to death was noted to be 140/100 and late on that same day was noted to be 170/110. The next day was 166/112 and the patient's complaints of heart burn increased but she had no HA, scotomata nor fundal vessel spasm and her proteinuria remained essentially the same at 2+ proteinuria and late on p.m. the patient was begun on Magnesium Sulfate drip being given a 4 gm. IV loading dose and was given 1 gm. per hour and the DTR and urine output were followed to be sure that Magnesium overdosage was not developing. On the 8th hospital day the patient's BP was ranging between 134/90 as an early a.m. pressure to as high as 156/100; however, the proteinuria was noted to increase to 3+. On the 9th hospital day the patient was complaining of some suprapubic pain and GU urgency and frequency and BP at that time again was noted to be 178/120 and despite the fact that the patient was only 2-3 days over 35 weeks gestational age a decision was made at this time that conservative therapy was not benefiting this patient sufficiently and that delivery was the only alternative. The patient was begun on Betamethosone 12 mg IM on that day to be repeated on the next day with the intent on the 3rd morning which was 48 hours from there to begin the induction. Cervix was noted to be two fingers dialated and around 80% effaced. The presenting part of the 1st twin was vertex. At this time the patient was having no scotomata nor headache. A catch urine was obtained also at this time and submitted for urinalysis and culture with a forthcoming result of about 50+ WBC with a few clumps and too numerous to count RBC per HPF and 3+ proteinuria. There was rare coarse granular cast. On the day of the patient's demise the urine culture was obtained back, and she was noted to have greater than 100,000 colonies per cc with a klebsiella pneumonia as the organism sensitive to Chloro-Tetracycline, Gentamycin, Kanamycin, Keflin, Strep, Tobramycin and Bactrim DS but not to Furadantin. The patient had been started on Macrodantin and Pyridium two days after the urinalysis, due to lower GU complaints. Urinary complaints did improve over the next day or two even though the organism was not sensitive. Patient's condition remained essentially the same on the day before her death, and she was receiving her 48 hours of steroids in hopes of maturing the fetal LS ratio with the anticipation of an induction being done. Only a few hours prior to the anticipated time of induction the patient's clinical course took a sudden change,

and on this day her BPS ranged from a high of 170/124 that day to as low as 140/90 and her temp remained mostly normal. Patient was given small increments of Apresoline IM about 5 mg for markedly elevated blood pressure being diastolic greater than 120 and/or systolic greater than 170 but this was only necessary on few occasions. Patient's heart burn continued to be bad.

The patient's BP was noted to be 160/110, and the patient was visited by her physician. Later the nurse noted that the patient complained of a chill and at that time her temp was 99.9 with an 82 pulse rate and BP of 160/100. At the beginning of the day before demise the patient had felt better, only 30 minutes later to begin complaining of shortness of breath, and she was noted by the nurse to have respirations that appeared shallow and rapid and her face appeared flushed and she was placed in semifowlers position with no apparent relief and her BP at that time was noted to be 100/40 and pulse of 100 and she had received no Apresoline since over 12 hours prior to that. Patient vomited a large amount of partially digested food and liquid and within 15 minutes the patient's physician had been summoned and arrived on the scene and at that time the BP was noted to be 50/24. Patient was turned in the left and right lateral positions with no benefit to her marked chest pain that she was complaining of nor her tachypnea nor shortness of breath and 02 was started and fluids were changed, stopping the Magnesium Sulfate drip and switching to D5W. Patient previously had been receiving D5W with Magnesium Sulfate via a continuous rate infusion pump. Assistance was immediately summoned by a cardiologist because the patient's complaints were that of severe chest pain, tachypnea (respiratory rate 28 and greater) and tachycardia, pulse rate around 140. Patient's chest pain was in the substernal area in the lower left chest area. Heart rate was noted to be fast and no gallop was heard. There was no neck vein distention. Chest was clear without evidence or rales. There were no peripheral cyanosis, and no evidence of acute abdomen nor intrauterine or intraperineal problems. At the onset of this change the fetal heart rate in one infant was noted to be 100 per minute; however, after 02 and increasing fluids the UC monitor looked OK as it was applied only to one fetus. Patient after an hour or more became more comfortable. Electrolytes were gotten stat and at that time a Sodium of 129, C02 of 14 was noted. Blood gases revealed a PC02 of 22 and P02 of 160, PH of 7.43 and Bicarbonate of 14.3 and this was with 02 running at 8 liters per minute. Patient's electrocardiogram done at that particular time was also read as normal by cardiologist. Portable chest X-ray was negative without evidence of heart failure. CBC was nl. Hgb. was 12. Fluids were then changed after electrolytes reported to normal Saline and were given cautiously at 100 cc per hour. Patient was followed frequently regarding vital signs. Foley cath was put in place and urinary output was followed and at that time the diagnosis of congestive heart failure and/or CVA as a result of the patient's severe hypertension was entertained. Also the thought of gram negative sepsis was entertained. Patient's temp at that time was 100.3. She did have a preceding history of dysuria and pyuria; however, at that time we had not received the urine cultures. About 3 hours after the onset of the change the patient's BP was noted to be 148/100, and the patient was contracting slightly and the uterine contraction fetal heart rate pattern was noted to be normal. During the ensuing few hours the patient's BP remained stable. She continued to receive normal Saline and rate was then cut to 50 cc per hour since her pressure had stabilized. Blood cultures were obtained during this particular time. The patient's chest pain came and went somewhat and she was given 10 mg of Morphine which eased her chest pain considerably. This was given in increments of 5 mg. and repeated again in 30 minutes to an hour and the BP was noted to be 148/100 and urine output preceding hour was 40 cc and had been greater than 30 cc all the preceding hours. At this time an attempt was then made to locate the 2nd fetus with monitor and this heart rate suddenly dropped to 90 then ceased and it was thought at first to be a positional thing; however, we were unable to hear it by oscultation either. Patient's BP was 132/90 at that time but again becoming faint. Pulse rate was 116 and patient continued to receive fluids and 02 by mask. It was recognized that the patient's condition was again worsening, and her chest pain was becoming more severe and her BP was beginning to become hard to hear again although it was still audible at 132/90. A decision was then made to artificially rupture the patient's BOW and try to begin induction with anticipation that possibly section would be needed. BOW was artificially ruptured and internal lead was applied and no fetal heart tone was audible. Patient's BP was 128/110. Output had dropped for 1st time at that time to 12cc for the preceding hour and the patient had essentially no output from there on. BP however maintained and the patient's chest pain begun worsening. The patient was noted to be 5-6 cm. dilated. A 2nd cardiologist was then summoned. BP was 130/110 with pulse of 120 and still no urine output. Patient was given Lasix 20 mg IV by the 2nd cardiologist who arrived. The patient's BP was noted to be 100/70 and 5 minutes later dropped to 40/0, and the patient for the 1st time had syanotic episode and about 5 minutes later had a cardiorespiratory arrest in the presence of her obstetrician an two cardiologists and was successfully resuscitated. At this particular time there had been for several hours no evidence of fetal heart activity, subclavian line was put in place and with an endotrachial tube in place from the resuscitation an emergency C-section was done under local anesthesia with delivery of two stillborn fetuses. According to the obstetrician the placenta was on the anterior wall and was separated, but there was only a very slight

retroplacental clot. It was also noted that during the procedure that there was oozing from multiple surfaces and needle puncture sites. Patient was transported to ICU. Cardiopulmonary arrest occurred again. After several minutes of external massage she was given intracardiac Epinephrine and heart beat returned. Her abdomen became more and more distended due to internal bleeding. She was given many units of whole blood, plasma, and fresh blood in an attempt to reverse her DIC. She was also given Heparin. The patient never regained consciousness. She continued to have repeated cardiopulmonary arrests during the night.

It was thought that cause of death was placental abruption due to increased intraabdominal pressure due to the twin pregnancy followed by amniotic fluid embolus from the over extended uterus with increased uterine pressure and immediate cardiac arrest due to the emboli followed by DIC with repeated cardio-cardiac arrests and generalized hemorrhage.

CLINICAL SUMMARY

20-year-old black female, gravida 1, para 1, abortion 0, admitted at term pregnancy one day before delivery after an uncomplicated prenatal course and being followed for some 6 months at a physician's office. This patient had uncomplicated labor with spontaneous rupture of membranes. She was given Demerol 50 mg im and Scopolomine 1/300 gr. during labor for sedation. She was given Pontocaine 5 mg diluted to 2 1/2 cc total volume for spinal anesthesia and had uncomplicated delivery of a 6 1b. 13 oz. female infant, per low forceps. There was some meconium staining of the infant, but Apgar score was 7 at one minute. Placenta was delivered 5 minutes after delivery of infant with no difficulty.

Five minutes after delivery of the placenta, patient suddenly gasped and stopped breathing and had cardiac arrest in which pulse and blood preasure were unobtainable. Patient was given CPR including electro-shock defibrillation over a period of some two hours following which patient had a straight-line and all resuscitation attempts were abandoned.

Autopsy was completely negative. Toxicology examination showed 0.3 mg% merperidine in the blood and 0.16 mg% in the liver. No belladonna alkaloids were detectible at post. The autopsy surgeon stated that anesthetic death secondary to spinal saddle block was considered, but was not felt to be instrumental since most of the problems occurred after delivery. Amnionic fluid embolism was felt to be excluded because membranes had been ruptured at least five hours before delivery. The line of the uterus was intact, but air embolus could not be excluded and was felt to be a remote possibility.

No definite cause of death could be found and patient was coded out with final anatomic diagnosis on path report as postpartum caridac arrest, cause undetermined.

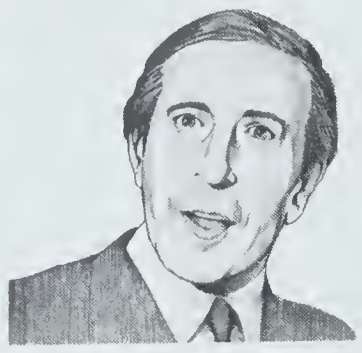
CLINICAL SUMMARY

22-year-old white female gravida 2 para 1 had a history of a previous cesearean section approximately a year earlier at 39 weeks gestation because of toxemia. During this pregnancy she had some complications which consisted of tooth extraction and some pharyngitis, but these were treated without event. She then developed some abdominal pain and nausea about three months later and was examined in the office. Urinalysis showed pyuria and some CVA tenderness. She was treated with Macrodantin and Pyridium. In taking the history it was discovered that her husband had also had some symptoms of gastro-intestinal illness during the week prior to her admission; but his symptoms cleared, and she developed similar symptoms and these persisted. She had also had some diarrhea associated with this period of illness. The following day she called to report severe abdominal pains, and she was brought to the labor room where she was found to be having active labor. Because of the previous cesearean section she taken to the operating room and low transverse cesearean section was performed without complication. A 6 pound 13 ounce female was delivered. Apgar scores at 1 and 5 minutes were 7 and 9. There was no unusual occurrence at the time of the cesearean delivery. Later in the day it was noted that the patient had become oliguric, but she remained alert and her vital signs were stable. She had some vomiting during the morning, and it was felt that her oliguria was secondary to deficient fluid intake and dehydration. With increased IV fluids her oliguria persisted and within the next two hours it was noted that she did not respond to increase fluid and her pulse rate had increased. It was also noted that she was showing signs of jaundice. Medical consultation was obtained, and she was transferred to the intensive care unit. She soon became hypotensive. There was no evidence of internal bleeding or other areas of blood loss. While monitoring central venous pressure and vital signs, it was noted that blood pressure could be increased with rapid fluid intake. She became hypotensive again soon after the rate of fluid administration was decreased. She later developed gastric bleeding and in spite of continued support her condition deteriorated. During the latter stages of her condition there was evidence of disseminated intravascular coagulation, and she developed bleeding from multiple sites. Transfusion was refused by the family because of religious beliefs. Her blood pressure continued to decrease and she expired the day following delivery. Autopsy was not obtained, and the exact cause of death was not determined. Although blood cultures had been negative it was thought that she may have had sepsis with secondary vascular collapse and intravascular coagulation. It was also considered that a pre-existing gastrointestinal or hepatic condition may have existed because of the history of her symptoms that existed prior to her admission.

FROM DIETARY COMPLAINTS



"Too Bland"



"Tasteless"



"No Variety"



"Hard To Cook"



"Only Cottage Cheese?"



"Daddy's Dull Diet"

TO COMPLIANCE



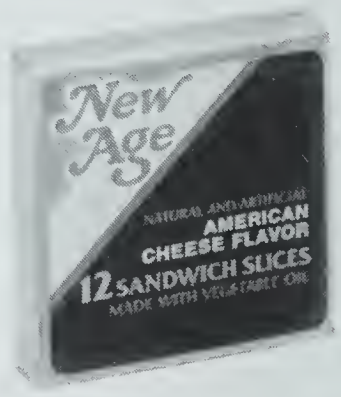
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Mrs. O. B. Carr, Jr.
President, A–MASA

Education Awareness Seminar

With the Christmas Season approaching, our hearts and minds traditionally turn to trying to find the perfect gift for those dear to us. Dear to the hearts and minds of Alabama auxilians for many years has been the need for health education in Alabama schools for the youth and future parents of our state.

Dr. Wayne Teague, State Superintendent of Education, has stated that an unhealthy child will never reach his or her potential in math, reading or any other subject in the curriculum. Reasons for education for health relate to those staggering problems of ill health in terms of physical, mental and social disability. Some of these impair development, others reduce the educability of youth, and still others lead to disability and death.

The Joint Committee on Health Problems in Education identified certain such problem areas as: lack of exercise, early marriage and parenthood, self-medication, health misconceptions, vision and hearing defects, resistance to authority, smoking, excessive drinking, obesity, search for identity, underweight, lack of motivation and self-direction, illegitimacy, narcotics and drug abuse, growth failure, dropouts, sexual experimentation, accidents, venereal disease, and dental caries.

There is ample evidence available in literature to substantiate each of these areas in terms of incidence and impact on health.

We as Alabamians cannot give our young people the gift of health but we can and must give them a good education, which includes comprehensive school health education. Thus developing competencies, skills and knowledge that will help one make intelligent decisions concerning health and life styles. Every individual, regardless of place in life, is required to make decisions affecting health every day. No other subject in the curriculum can make such a claim of relevancy.

The ultimate value of health education cannot be measured by ordinary standards or in ordinary periods of time. One bit of health information properly applied may save a life now or 40 years from now. That single life may be so valuable to society that this health education learning may be of greater value than any other bit of learning that the individual may have experienced. Therefore we must conclude that health education **is** just as important as reading, writing and arithmetic.

There are those in Alabama who would say we must get back to basics! The auxiliary says health education is a basic and a very necessary one. The well educated as well as the ignorant become unhealthy. Society cannot afford to lose citizens in their most productive years because they may have lacked the necessary health education that might have made a difference in their health status.

One of the goals of the auxiliary this year is a revitalization effort of the general public, parents, local school boards, teachers, educational professionals & legislators for the continued need for Comprehensive School Health Education in Alabama. A Comprehensive School Health Education Awareness Seminar was held at the University of Alabama in Birmingham October 29, 1980, jointly sponsored by the auxiliary and UAB School of Education. As president of the auxiliary, I was privileged to serve as chairman of the program. Other program participants included Dr. Milly Cowles, Dean School of Education, UAB; Dr. Anthony C. L. Barnard, Assistant Vice President, University College, UAB; Dr. Mabel C. Robinson, Assistant Dean School of Education, University of Alabama in Birmingham; Senator Lister Hill Proctor, Alabama Senate; Dr. William Berryman, Director of Instructional Services, State Department of Education; Dr. Richard Means, Director of Health Education Auburn University; Dr. Pete Cortese, Director Comprehensive School Health, Department of Education, Washington, D.C.; Mr. Jim McVay, Director of Primary Prevention, Alabama Department of Public Health; Mrs. Arletta Eastis, representing Community and Volunteer Health Education Agencies; Dr. Joseph Morton, Superintendent of Education, Sylacauga, Alabama; Mrs. Lynn

Foshee, Project Director for Project Heal (federally funded health project), Sylacauga Schools; Dr. Ken Gunter, Project Apple Health Director, Pickens County Schools; Mrs. Elaine Maxime, Director of Health Services, Mobile Schools; Mr. Hugh Craig, Health Education Specialist, Jefferson County Schools; Mr. Fred Taylor from Tuscaloosa City Schools; and Mrs. Clara Hall, Education Chairman, Alabama Congress of Parents and Teachers.

Community and Volunteer Health Education Agencies were invited to display educational materials and services provided for parents, teachers, students and the public. Among the 23 organizations participating in the health fair were Planned Parenthood of Huntsville and Birmingham, Alabama Cooperative Extension Service, National Huntington Disease Association, Alabama Dairy and Food Nutrition Council, The Leukemia Society of America, The Alabama Lung Association, The American Heart Association, The American Cancer Society, The Alabama Department of Public Health, The South East Alabama Sickle Cell Clinic, The Kidney Foundation of Alabama, Alabama Chapter Cystic Fibrosis Foundation, Children's Hospital Poison Center, National Council on Alcholism, Alabama Bureau of Dental Health, Alabama Health Systems Agencies.

Alabama Public Schools represented included: St. Clair County Board of Education, Birmingham Board of Education, Shades Cahaba PTA, Hartselle Board of Education, Hale County, Pickens County Board of Education, Talladega Board of Education, Jacksonville City Schools, Sylacauga Board of Education, Tuscaloosa City Board of Education, Tarrant Board of Education, Heflin Alabama Schools, Bessemer City Schools, Marion County Schools, Jefferson County Schools, Greenville Department of Education, Scottsborro City Schools, Selma City Schools, Randolph County School System, Anniston City Schools, and Athens City Schools.

Alabama College and Universities represented included: UAB, University of Alabama in Tuscaloosa, Athens State College, Alexander City Junior College, Jacksonville State University, University of Montevallo, Birmingham Southern College, Samford University, University of North Alabama.

As you can see the enthusiasm, interest and attendance were impressive and the auxiliary and UAB School of Education were very pleased and have received many positive responses to the seminar.

Dr. Pete Cortese, Director Comprehensive School Health, Department of Education, Washington, D.C., commended Alabama on the progress we have made in health education as compared to other states. Certainly we have come far, but we have far to go. Few would dispute that programs of health education in the schools of Alabama have been less than satisfactory. And there are those who would say that this isn't a good time to be pushing education for anything with proration.

As one educator put it "They say you can't get blood out of a turnip and now they want the turnip!" But if we are going to wait until we get all our problems solved, you know we will always be waiting. Benjamin Franklin said, "The Lord helps those who help themselves" and so it must be for those interested in school health education. Today's society is becoming every more health conscious and health is featured in newspapers, business, sports, industry and television.

Through sound health instruction, students can be led to understand the inner workings of the human body, behavioral relationships, and emerging social health problems which have implication for all mankind.

Does Alabama need a planned adopted course for the implementation of health education in our public schools? Perhaps a program that educators, interested health organizations, legislators and the public could be proud of! Do we need health education workshops and inservice programs for our teachers? Until this year teacher education certification for elementary and secondary education (except for physical education didn't require health courses.

Should the Health Education Curriculum Guide, developed for teachers by the State Department of Education, be enriched and updated with teaching aids and materials for teachers? Does Alabama need a Health Education Resource Center for health education materials and visual aids readily available for teachers use? Whose responsibility is school health education?

Is it just the responsibility of the Department of Education? Certainly not! The Teen Pregnancy Prevention Leadership Conference at the Civic Center in Montgomery Dec. 3, 1980 is sponsored by the Department of Education, The Medical Services Administration, Mental Health Department, Office of Rural Health Affairs, Pensions and Security Department, Public Health Department and Youth Services Department of Alabama.

Alabama does have one of the highest rates of teenage pregnancy in the country. This conference is an approach to initiate a united effort to combat this serious problem and make State resources and leadership available to local communities. Family Life and Sex Education for teenagers is just one of the many facets of a Comprehensive School Health Education Program.

The auxiliary does indeed wish to thank each Alabama physician for their continued support and interest as we continue to work together for Comprehensive School Health Education in Alabama.

Sincere good wishes for a Joyous Christmas and may the Peace and Joy of Christmas abide with you throughout the coming year.

Mary

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For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets



Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Her next attack of cystitis may require

the Bactrim™ 3-system counterattack



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Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

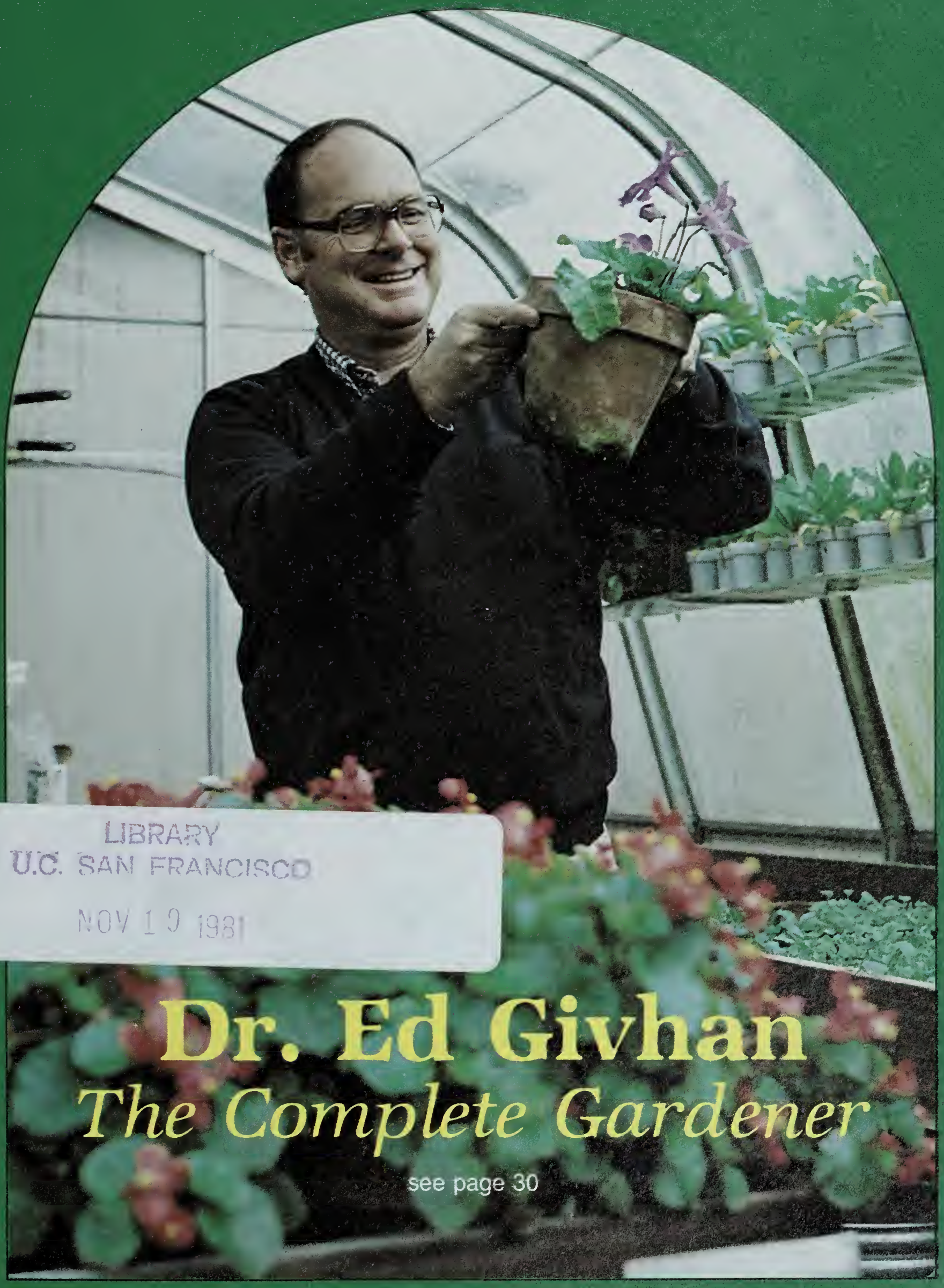
Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

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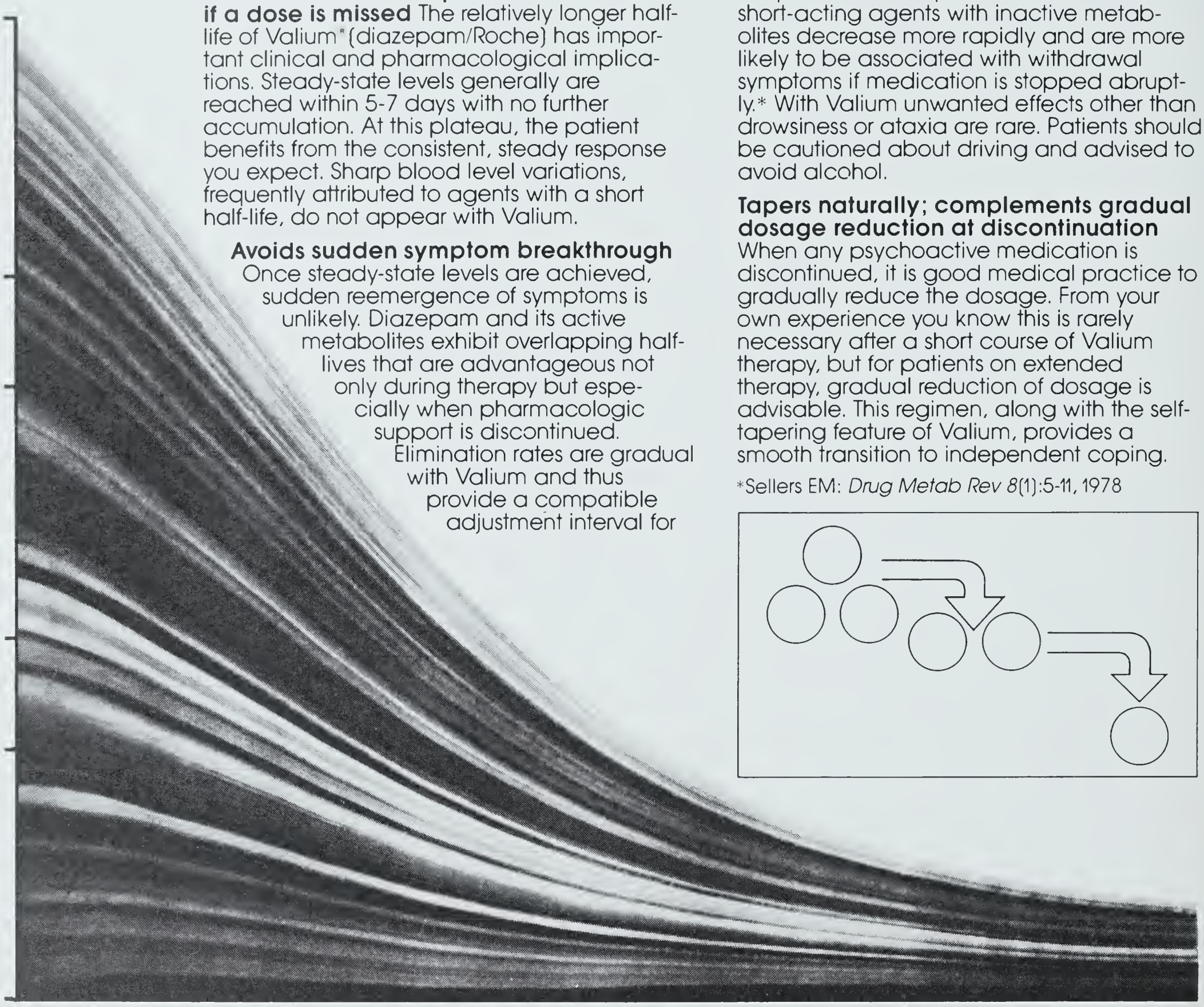
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Dr. Ed Givhan
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see page 30

half-life

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Ensures smooth therapeutic effect even if a dose is missed The relatively longer half-life of Valium® (diazepam/Roche) has important clinical and pharmacological implications. Steady-state levels generally are reached within 5-7 days with no further accumulation. At this plateau, the patient benefits from the consistent, steady response you expect. Sharp blood level variations, frequently attributed to agents with a short half-life, do not appear with Valium.

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diazepam/Roche
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effective therapy through efficient pharmacodynamics

Before prescribing, please see summary of product information on next page.

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diazepam/Roche

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The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients Caution against hazardous occupations requiring complete mental alertness When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures Advise against simultaneous ingestion of alcohol and other CNS depressants Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months After extended therapy, gradually taper dosage: Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
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Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy

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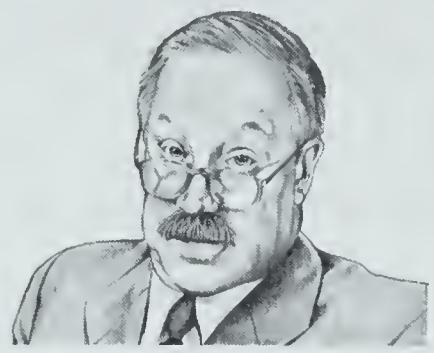
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"Hard To Cook"



"Only Cottage Cheese?"



"Daddy's Dull Diet"

TO COMPLIANCE



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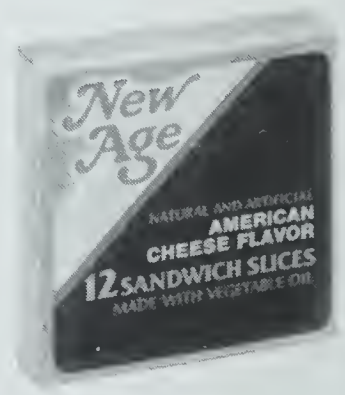
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JOURNAL

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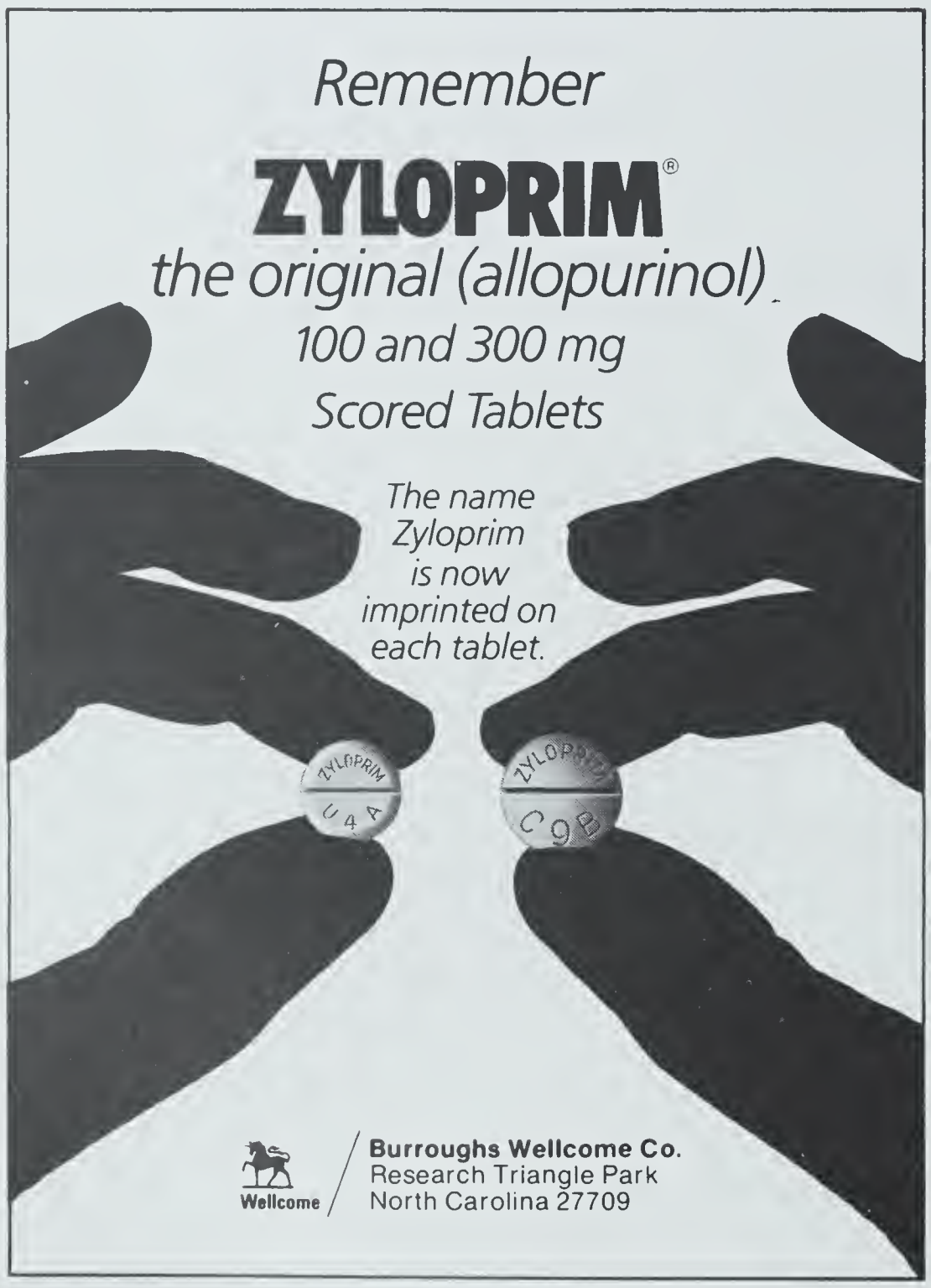
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Keep Your Powder Dry

The returns Nov. 4 left little doubt of a conservative shift in the nation, with the election of President Ronald Reagan and the seating of what is regarded as the most conservative Congress in 50 years.

In step with the times, the AMA House of Delegates at its interim meeting in December called for an end to federal PSRO programs and reaffirmed its opposition to PL 93-641, the health planning law.

Medical listening posts in Washington indicate the new Administration might call for an end to health planning, or at least let the present structure wither on the vine for lack of funding.

It would be easy enough to wax complacent now and assume that the battle has been won. This would be a serious mistake. Many of those presenting organized medicine's case in Washington are concerned that the good guys (conservatives) may prove more difficult to do business with than the bad guys (liberals) for many reasons, not the least being that the congressional bases for medical clout have been altered.

Additionally, reports from Washington point out that if this is going to be a business-oriented Administration, remember that the new business attitude is that something must be done to hold down the costs of health care.

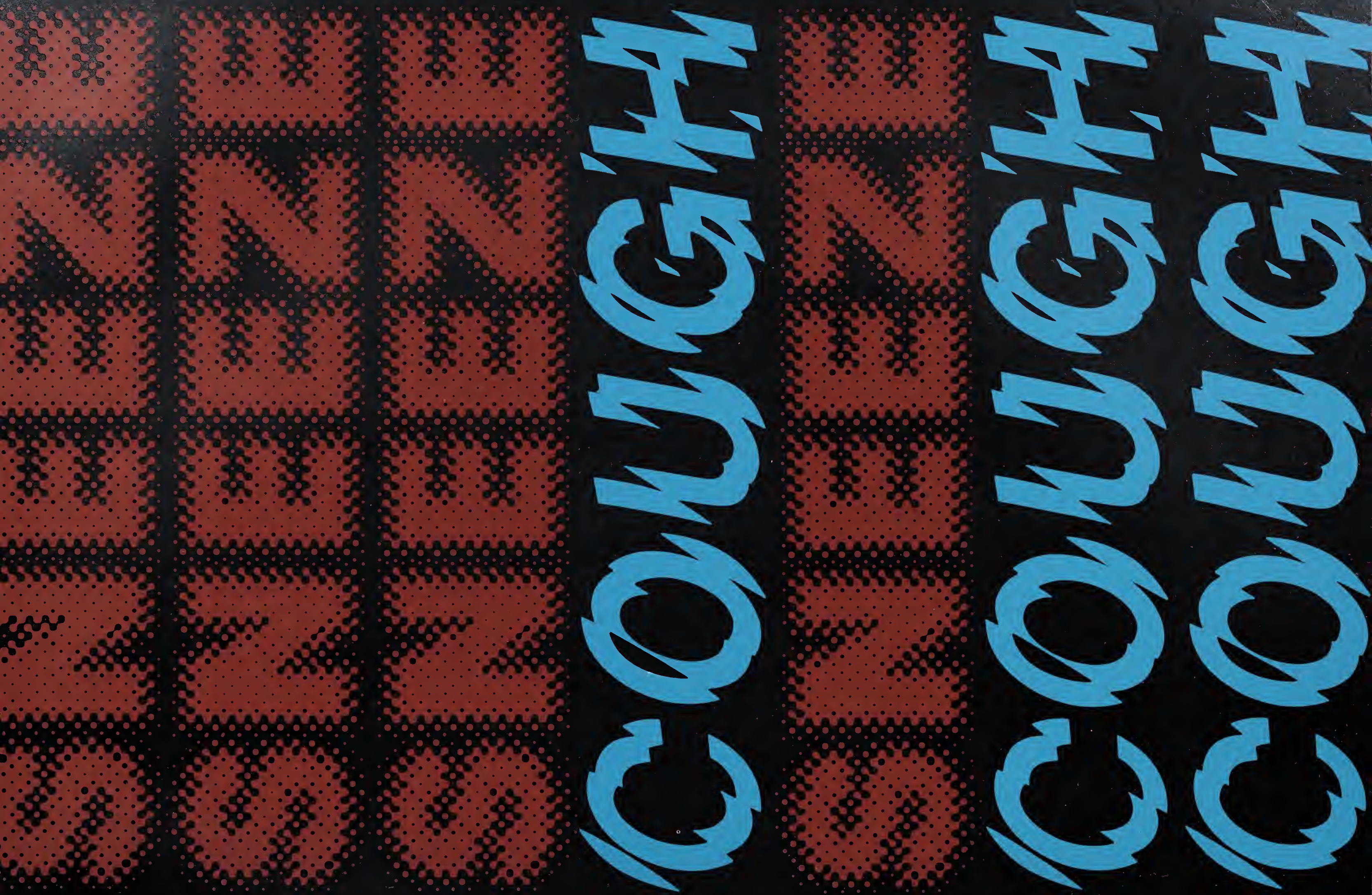
Many industrialists have been hard at work for years in organizing HMOs, and in other planning areas, in an effort to reduce the mounting overhead cost of health care packages in employee benefit programs.

Health care overhead, some say, is one of the reasons American industry has had such a bad time competing with foreign manufacturers—this cost, added to the historically higher wages of Americans, puts American industry at a price disadvantage before the game begins, they say.

Of course, organized medicine yields to none in working for cost containment along with quality of care. Physicians do want a strong voice, however, in methods proposed to keep costs down, since these have not been notably successful in the past. In fact, unwise restraints and controls are a major part of the problem.

Thus it is certainly too early to relax and assume that the threats of years past have ended. More likely, they will have only changed shape.

S. Lon Conner


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Each prolonged action tablet contains:

Phenylephrine Hydrochloride	25 mg
Phenylpropanolamine Hydrochloride	50 mg
Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0.19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours.

- Vasoconstrictor, antihistaminic actions
- Rapid and prolonged relief of nasal and sinus congestion
- Convenient b.i.d. dosage

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For Coughing With Nasal and Bronchial Congestion



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(WARNING: MAY BE HABIT FORMING)	
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Ammonium Chloride	200 mg
Alcohol	5%

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- Good tasting

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For the Family

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RU-TUSS® TABLETS

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Each prolonged action tablet contains:

Phenylephrine Hydrochloride	25 mg
Phenylpropanolamine Hydrochloride	50 mg
Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0.19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours.
Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.
INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets.
CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant Concomitant use of MAO inhibitors is contraindicated
WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.
PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings).
OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death
ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness; dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure
DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening Not recommended for children under 12 years of age Tablets are to be swallowed whole
HOW SUPPLIED:

Bottles of 100 Tablets	NDC 0524-0058-01
Bottles of 500 Tablets	NDC 0524-0058-05

Federal law prohibits dispensing without prescription

RU-TUSS® EXPECTORANT

DESCRIPTION
Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	65.8 mg
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation.
INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis. Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold.
CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.
Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant.
WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effect caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers
PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings) Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease Caution should also be used in patients with pulmonary, hepatic or renal insufficiency
ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions
DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period.
Children 6 to 12 years of age: ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period Children 2 to 6 years of age ½ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period Children under 2 years of age: Use as directed by a physician.
HOW SUPPLIED

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PRESIDENT'S PAGE

Plan Now For Mobile In April



C. A. Lightcap, M. D.
President

If January comes, the poet might have written, can April be far behind?

April in Mobile is magnificent. I urge you now to block out April 23-25 on your calendars for attending the annual session of MASA.

You and your spouse will find it not only stimulating but downright fun. I hope I don't need to tell you of all the fine places we have to wine and dine, the historic sights of Alabama's oldest city, and the birthplace of the idea for a state medical association back in the dark days of the last century.

I suppose one of the reasons that MASA Presidents serve their last hours in their own neck of the woods is to provide that consolation of familiar surroundings when they hand over the gavel to their successors.

In any case, I bid you welcome to my home town and promise you that you will not regret visiting us in the palmy days of April 1981.

The program is shaping up as one of our best sessions ever.

C. A. Lightcap, M.D.

MEGAPHONE

How Does the Medical Profession Guarantee Quality Patient Care?

By
Charles D. Sherman, Jr., M.D., P.C.
Medical Society of the State of New York

Some legislators, planners, medical administrators and other health professionals have focused on Continuing Medical Education (CME) as the major factor in keeping physician knowledge up-to-date and thereby guaranteeing quality health care to the American public. This article will discuss the role of CME, along with other factors that help achieve this goal.

In my opinion, the quality of medical care can be maintained best by the continual upgrading of our medical schools. U.S. medical schools are preeminent in the world and the physicians trained by them are outstanding.

Although it is a profession under attack at the moment, medicine and its practitioners have continued to be held in very high public esteem. Medical schools choose from an outstanding pool of candidates who in turn are able to take advantage of the excellent medical education our schools offer.

Secondly, quality care for the public is best obtained through development of residency training programs. These programs build upon the knowledge and skill acquired in medical school and, through graded increases in responsibility for patient care, turn out young practicing physicians whose abilities are unmatched anywhere in the world.

Furthermore, the development of specialties in various fields, with their particular residency certification and programs, practically guarantees quality care for patients who require specialized services.

A third way is through quality control measures in hospitals and enforcement of standards through the Joint Commission on Accreditation of Hospitals. Facilities must be kept up-to-date. Tissue Committees must function properly. Conferences on complications and death are important in the evaluation and improvement of patient care. Audit systems and review of all records are now the norm. In short, standards are set and adhered to. Physicians review one another's work in a variety of ways and review the total care rendered in the hospital.

The Fourth Way

The fourth way is through Continuing Medical Education. Though it is an important factor in guaranteeing quality care, it has, in my opinion, been overemphasized. Advances in medicine occur continuously and physicians do have a responsibility to keep up-to-date. A high calibre of physician skill and knowledge has already been established by the time medical school and a residency program have been completed, and this proficiency is maintained through day-to-day quality control of one's work.

The physician is already practicing medicine, in a way which exemplifies "doing whatever is necessary to give the best care to one's patient." The physician has also learned where to obtain needed information, and is skilled in interpreting it, in the patient's best interests.

High quality journals and books are readily available to every physician in the U.S. and they remain the best source of continuing medical education. Among their other functions, our national, state and local medical organizations serve as vehicles through which new information is disseminated and integrated. Most of the CME courses and programs developed by hospitals, specialty organizations and institutions of medical education are excellent.

These courses fill an important need, particularly for the narrower specialties, e.g., ophthalmology, in providing new medical data that is used frequently by the physician.

This does not say that CME guarantees excellence in medicine. A large percentage of CME courses are not of significant practical value to the physician, and thus CME can be ineffective in improving the health care of patients.

There certainly are times when substandard medical care is rendered. These instances, in my opinion, do not reflect a lack of knowledge, but rather a failure to utilize what the physician already knows, e.g., failure to take a Pap smear when indicated. This attitudinal or motivational failure cannot be corrected by continuing medical education.

This problem begins with an individual's character development in early childhood, and can be ascribed to an inability to select the perfect medical school student, and finally, our failure to insist that all of us—students, residents and practicing physicians—"do everything that's necessary to render good patient care."

New York's Reservations

An offshoot of the concept that CME is the most important factor in keeping one's medical knowledge up-to-date and so to ensure quality medical care is the consideration given to the mandatory CME requirement for membership in medical societies and for relicensure or re-registration of license.

Many specialty boards are now requiring recertification to ensure that specialists stay informed. While there

is validity to this concept, most physicians don't think that one's ability to pass an examination has much to do with ability to render good patient care. Many physicians feel that some medical societies and legislators are using the mandatory CME requirement as a gesture for the public.

We in New York State have some reservations about CME requirements for continued membership in MSSNY, and especially about our state legislature's intent in trying to mandate CME for re-registration. If the state forces this requirement on us, we hope to have included a clause which would accept membership in MSSNY as fulfilling the state's CME requirement. This obviously would boost membership. It seems ironic that legislators appear to be forcing us to upgrade an already very high standard of health care, while, at the same time, they are legitimitizing other types of dubious health care, such as chiropractic, and legislating public funds for such fields.

In our final consideration of continuing medical education, we must create a balance maximizing its role in medicine when it is informative and vital, and minimizing it when ineffective.

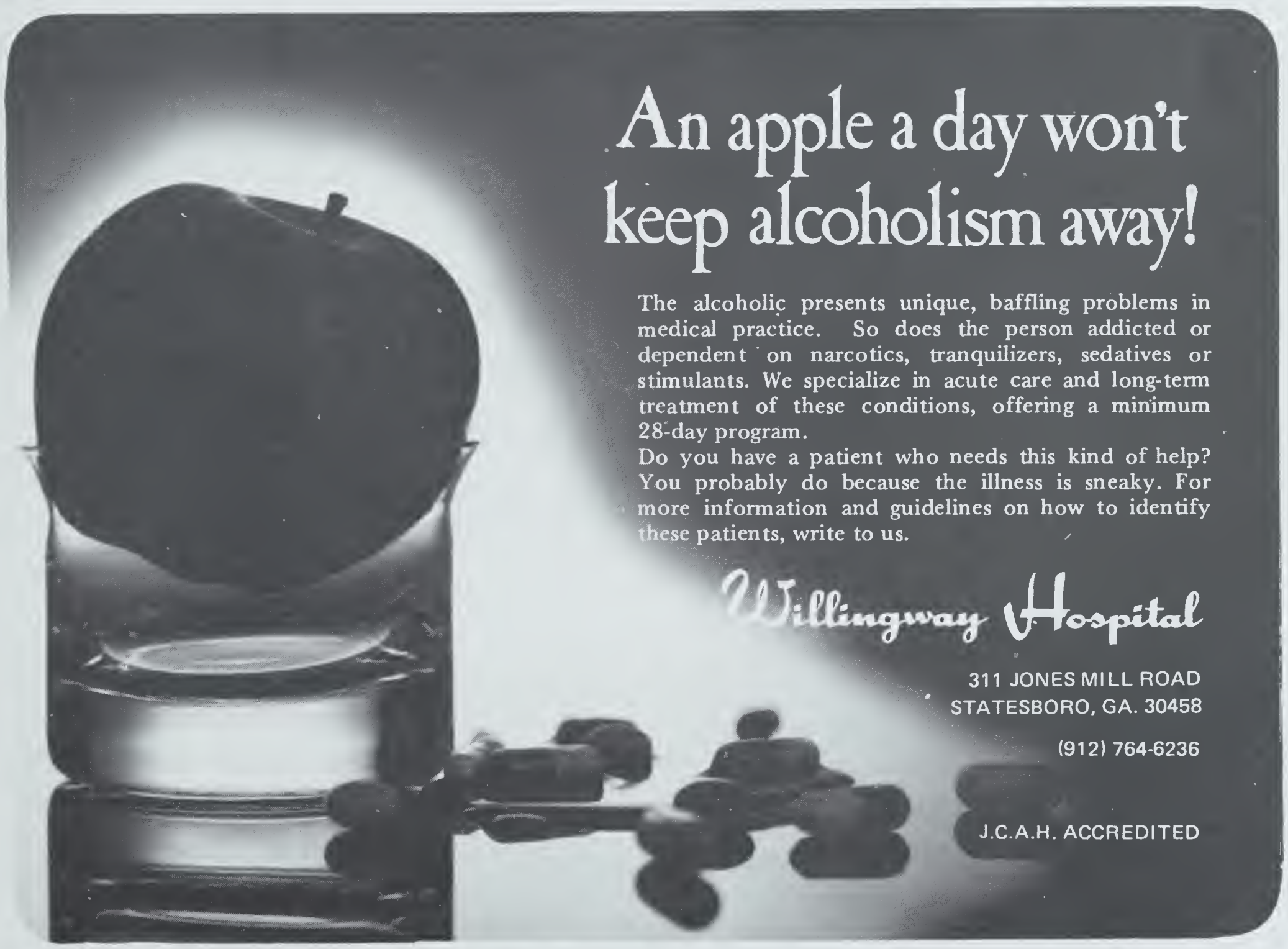
It should be our goal to try to develop the best possible CME—programs that have a significant impact on a physician's practice and its day-to-day challenges. CME is successful when information gleaned through a course or program is used by a physician as he confronts particular clinical problems.

The concept of a "teaching consultation" rendered at the time a physician has a patient with a problem should be developed, making it an outstanding educational experience and worthy of CME credit. We should encourage other pilot projects and research efforts into ways and means of making CME programs more meaningful to the physician and beneficial to the patient.

The AMA might consider expanding its already outstanding educational section by increasing its collaboration with specialty societies and other groups researching and developing individualized CME for use by physicians in their own hospitals. This would ensure meaningful CME for the physician and ultimately would be beneficial to the patient. Since the physician would not have to spend time and money in traveling, this type of CME would be available at moderate cost.

Finally, I hope we do not spend large amounts of time, effort and money in developing a bureaucracy devoted to collecting data, record-keeping, surveying and accrediting programs. Rather, I hope our main emphasis and the allocation of funds will focus on the more important aspects discussed in this article.

Charles D. Sherman, M.D., is clinical professor of surgery at the University of Rochester School of Medicine and Dentistry. He is a delegate to the AMA and a member of the AMA Committee on Accreditation of CME. He is also a councilor of the Medical Society of the State of New York and a member of its committees on cancer and continuing medical education.



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LETTERS



SOUND OFF

Is The Doctor Surplus Real?

Editor, The Journal:

Congratulations to Executive Director Lon Conner on the very literate column "The New Malthusians" in the October 1980 **JMASA.** You certainly cover both sides of the question ("maybe there will be too many, and then again maybe there won't"), and it is hard to disagree with that. There are, however, a couple of comments that might be worth making.

First of all, I do not believe that "it all began when former HEW Secretary Califano suddenly stopped deploring the physician shortage a couple of years ago and began talking about the medical glut."

Actually, it started in 1974 with a bill introduced by Congressman William Roy, M.D., from Topeka, Kansas. Congressman Roy, then a member of the House Subcommittee on Health and Environment, unexpectedly introduced a bill (intended to replace the 1971 Health Manpower Act) in which it was clearly stated that the problems in delivery of medical care by physicians did not derive from a lack of aggregate numbers but rather from "maldistribution by specialty and by geography."

The number of this bill was something like H. R. 14357, and I believe that was actually "when it all began."

Another point which might be identified as "when it all began" was an article by Dr. Donald B. Louria in the **New England Journal of Medicine** titled "Coping With the Approaching Doctor Glut," volume 300, pages 1047-1049, 1979.

Some very scary suggestions were made by Senator Ted Kennedy in health manpower bills of 1974 (S. 3585) and of July, 1976 (H. R. 5546) (which was actually Kennedy-inspired, although it was a House bill). Actually, a young physician who had never been in practice and I think might not have even had an internship was the chief author of these, and his name was Dr. Bryan Biles. I believe he is still floating around Washington, and I think he has been on the Kennedy staff. I'll enclose the pertinent portions of H. R. 5546 and S. 3585.

As you will see, they propose the setting up of a national commission to regulate in great detail the actual number of residency positions in each hospital throughout the United States, with ten regional regulatory commissions, one for each of the 10 federal HEW regions.

These recommendations scared everybody so much that Assistant Secretary for Health Theodore Cooper, M.D., pushed very strongly for an **appointed advisory** committee to the Secretary of HEW to head off the creation of a **statutory regulatory** committee which would be so unworkable as to wreak havoc in the residency programs around the country. This administrative action by the Executive Branch was finally accomplished, and GMENAC was established in 1976.

In Paragraph No. 7, left column, you mentioned that Jim Sammons said, "History has shown that long term medical manpower projections are extremely difficult to make, given all the complex factors presently known."

The problem with this statement hinges partly on the definition of "long term" and in part on the fact that the forecast is not for a single number but for two numbers and a ratio between these. In other words, the judgment that there will be "70,000 surplus physicians in 1990" is not the result of a single projection but of two projections: One for supply and one for demand.

The supply number can be forecast with a considerable degree of accuracy; Dr. Tarlov, Chairman of GMENAC, estimates "about a 2% error." I would guess less error than that. This is because of the long training period for medicine (the "pedisolane") and the fact that the numbers which will be going into practice in 1990 are virtually determined at this point already. Obviously, the numbers for the year 2000 are considerably less certain, since a lot of things may happen in the mid-80s to alter the situation.

With regard to "demand," the situation is indeed more complex and extremely uncertain. There are a host of known factors under which various assumptions must be made to generate any kind of numbers, and there are presumably a large number of factors which are unknown. These might include such things as the advent of some sort of change in the health care delivery system (such as "comprehensive national health insurance"), changing economic conditions within the United States, etc. I think most people at the present time recognize that the demand side is extremely hazy, therefore the "surplus" is an uncertain figure.

Finally, I certainly agree with you that in Alabama at the present time, since we are 45th in the country in per capita number of doctors and have a number of counties with very few doctors, "under service" is much more of a problem than "over service." It is even possible that "over service" or a surplus will not ever be a problem in Alabama.

I will just add one other thing. If one calculates the number of physicians to maintain a population to physician ratio of 500 to 1 in a state with a population of 3.9 million, assuming that the physicians will practice about 35 years, then Alabama needs to produce exactly 229 annually. This is, in fact, precisely the number which we are scheduled to produce annually!

In other words, through the extremely careful planning and the unbelievably wise and perspicacious

foresight of the dean of the medical school, Alabama is doing its job to absolute perfection!

Thanks for your interesting article.

James A. Pittman, Jr., M.D.
Dean
University of Alabama
School of Medicine

Offensive

Editor, The Journal:

I just got the November 1980 Communicable Disease Report and was distressed to find on page 2 in the editorial note on the short course chemotherapy for tuberculosis that the physicians in the state government were referring to us as "providers."

I understand that the bureaucrats use this as a psychological ploy to keep physicians in a subservient attitude, but was distressed to find the physicians in state government using the same phraseology.

James H. Larose, M.D.
Birmingham

Editor, The Journal:

I have just recently left the State of Alabama, where I served as Health Officer for the West Alabama District Health Department. I was delighted to see the excellent article entitled **Responding to the Nebulous Threat of Rabies** by Dr. H. Michael Maetz and Dr. Wallace E. Birch.

Over the years, I have consulted on numerous animal bite cases. There is a continuing need for education of not only the public, but physicians, emergency rooms and law enforcement agencies.

I long advocated the need for a central control for rabies vaccines for humans in the State Health Department in Alabama. Requiring the health care provider to submit to "advice" is the major positive by-product for such a system. In addition, it simplifies the continuing questions of availability and location of supplies of vaccines. It would also be appropriate for the state, through a central mechanism, to be prepared to supply vaccine to truly indigent individuals. I have long lived in fear of an individual going without a necessary treatment because of the cost, which now runs as high as $600 or $700.

Another difficulty which I encountered in the State of Alabama, is a continuing lack of responsiveness of elected officials in animal control activities, especially in rural areas. A human case of rabies might well stir responsiveness, but must it take such a tragedy?

Charles Konigsberg, Jr., M.D., M.P.H.
Director and Health Officer
Memphis/Shelby County
Health Department
Memphis, Tenn.

CYCLAPEN-W® (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, nonpenicillinase producers.
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

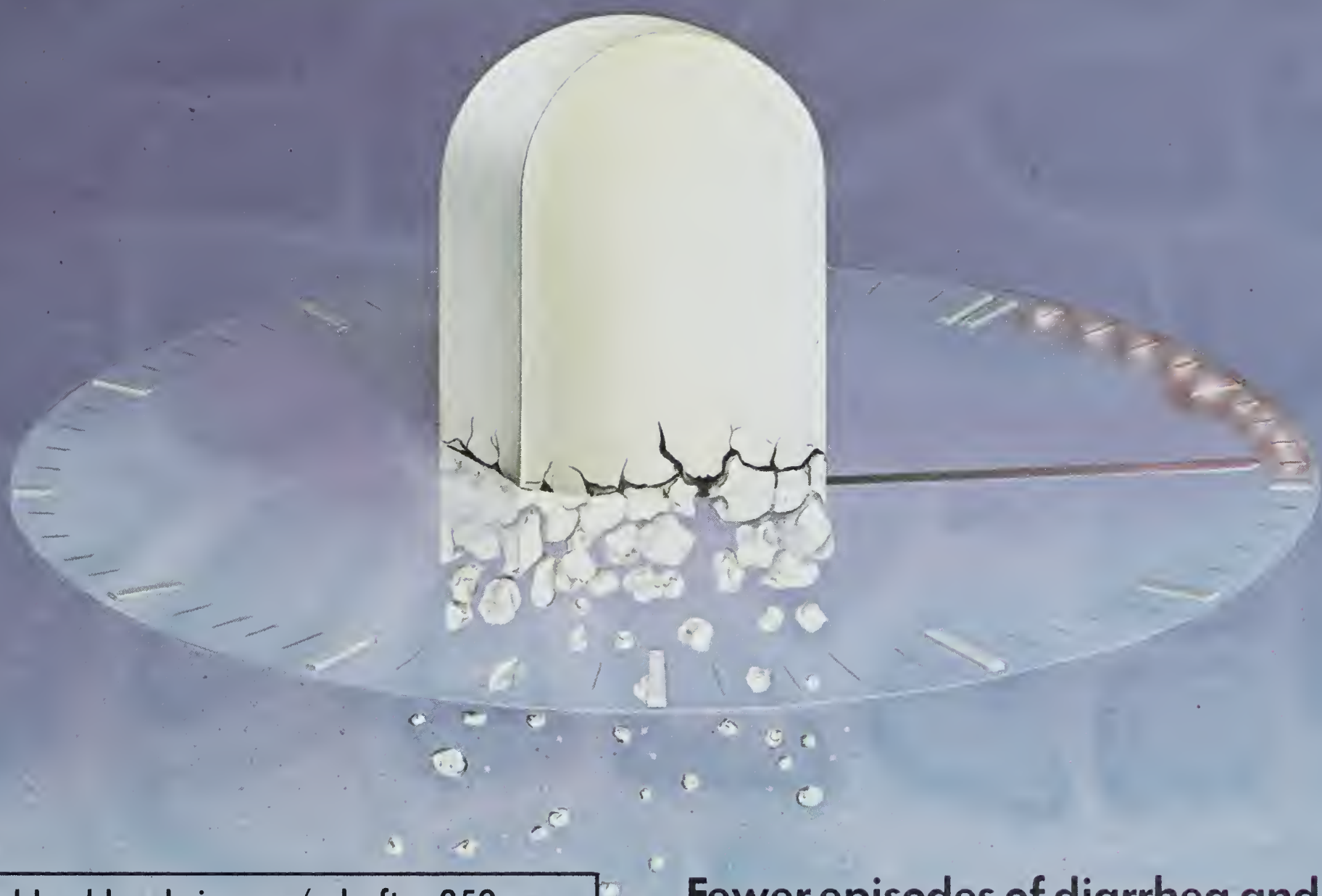
INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
†depending on severity

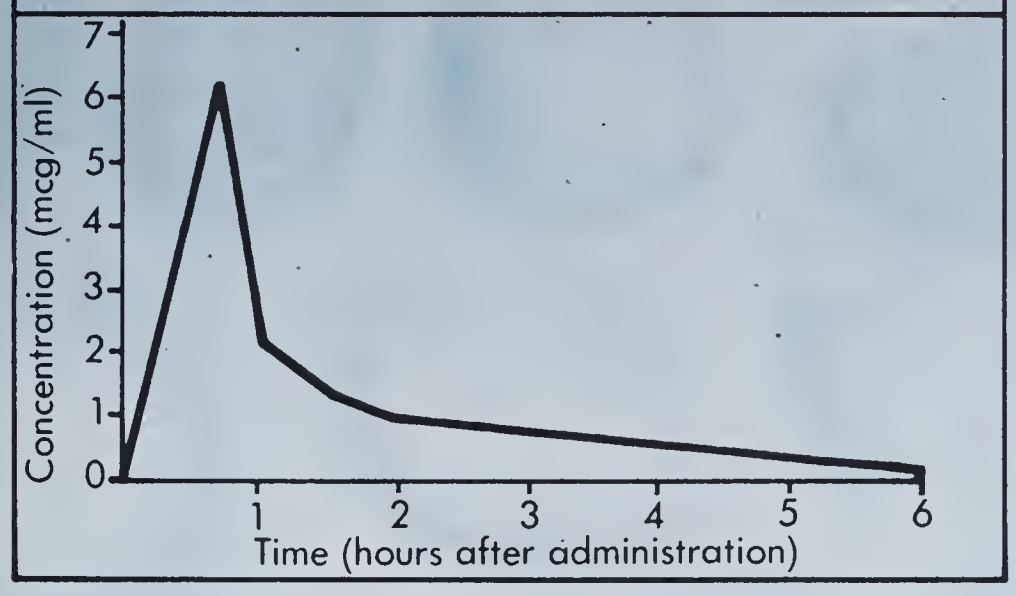
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*Based on T^{a} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Toxic Alopecia Associated with Ibuprofen (Motrin)

by
Richard T. Herrick, M. D.

from the
Orthopaedic Clinic of East Alabama, P. C.
121 North 20th Street
Opelika, Alabama 36801

ABSTRACT

Apparently reversible toxic alopecia developed in a patient utilizing a hair-coloring preparation while taking Ibuprofen. The use of such processors is probably a contraindication to taking Ibuprofen, even in otherwise healthy patients.

Alopecia associated with Ibuprofen (Motrin) has been described only once, to my knowledge,[1] in 15 black patients, all of whom had used numerous hair-straightening preparations which are known to break the Disulfide cross-linkage in the hair protein.

Several other side-effects of Ibuprofen usage have been reported, including meningitis,[2] Stevens-Johnson Syndrome, and toxic hepatitis,[3] as well as in more common gastrointestinal upset, etc. These adverse reactions are apparently more common in patients with other medical problems such as systemic lupus erythematosus, congestive heart failure, and hypertension, from none of which was our patient apparently suffering.

Case Report

ST is a 39-year-old 70 kilogram white female with mild sero-negative polysynovitis, who developed carpal tunnel syndrome, with non-specific flexor synovitis, which eventually required surgical decompression and synovectomy. She took 800 milligrams Ibuprofen t.i.d. for approximately three months, after which she first noted thinning of her hair. She had previously and concomitantly been using, for several years, a dye-preparation to obliterate graying of her hair. Following surgery, she stopped taking the Ibuprofen, and thereafter over a several month period, noted cessation of the alopecia, in spite of continued use of the hair-coloring preparation. She is apparently showing reversal of the process, bur has not yet, after approximately six months, reached her previous condition of hair thickness. Laboratory studies included a negative RA Latex; negative ANA; no SLE cells were seen; normal CBC, normal urinalysis, normal liver function studies, normal renal function studies, and a slightly elevated Sed Rate. The synovitis has been adequately controlled with aspirin, and there has been complete resolution of the carpal tunnel syndrome.

Conclusion

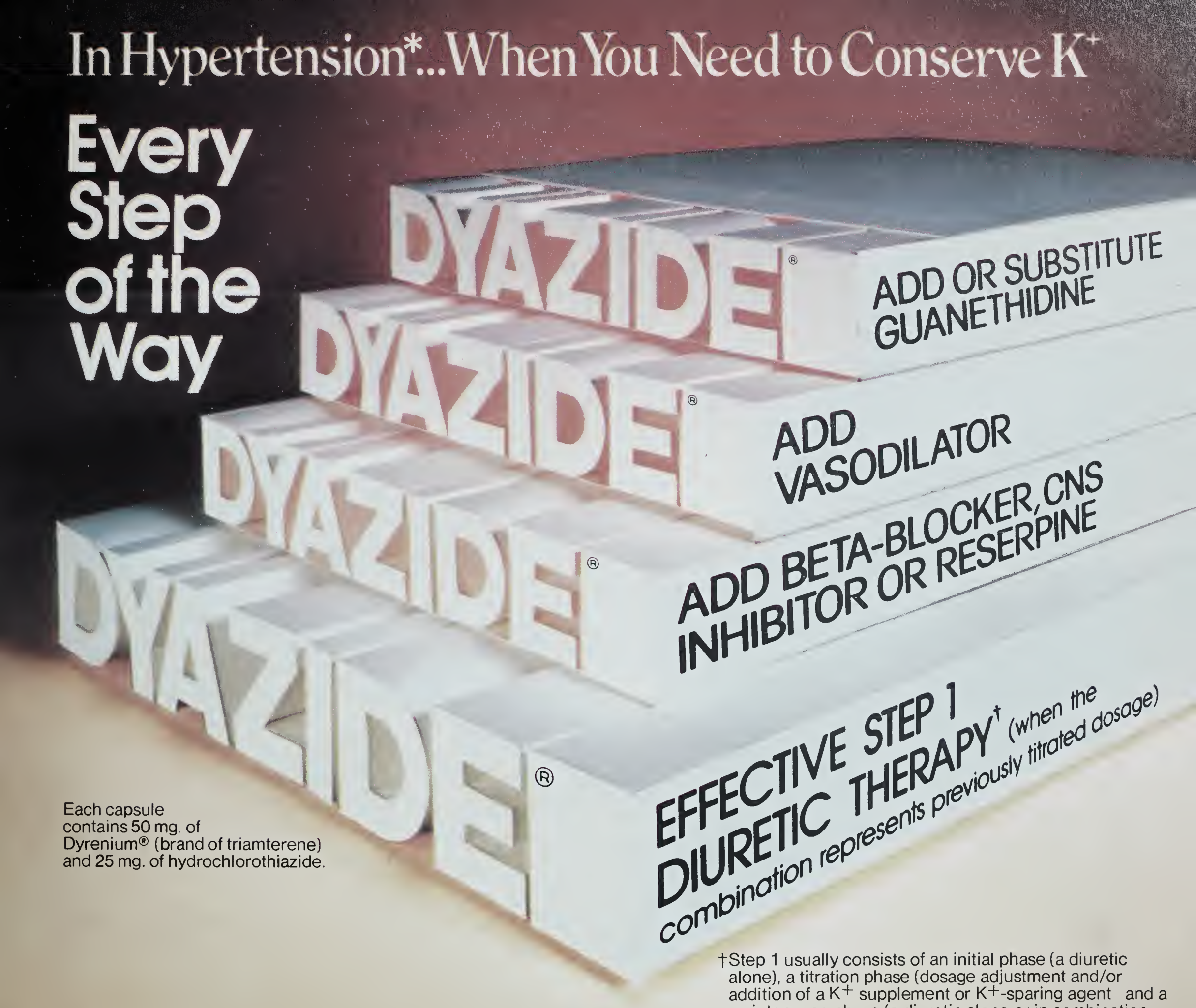
The problem of alopecia developing in patients using hair processors while taking Ibuprofen is a definite possibility, in black and white patients, and a history of using such preparations should probably be a contraindication to the utilization of Ibuprofen.

This is yet another case of inter-action of chemicals of which physicians must be aware, and prescribe for their patients accordingly.

1. Meyer, HC, Alopecia Associated with Ibuprofen. JAMA 242:142, 1979.
2. Widener, HL and Littman, BH, Ibuprofen-Induced Meningitis in Systemic Lupus Erythematosus. JAMA 239-1062-1064, 1978.
3. Sternlieb, P and Robinson RM, Stevens-Johnson Syndrome Plus Toxic Hepatitis Due to Ibuprofen. NY St Med 78:1239-1243, 1978.

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†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K^+ supplement or K^+-sparing agent and a maintenance phase (a diuretic alone or in combination with a K^+ supplement or K^+-sparing agent).

Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. A brief summary follows:

* **WARNING**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in postsympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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References: 1. Paulson GW: *NY State J Med 79:* 193-195, Feb 1979. **2.** Hollister LE: Antipsychotic medications and the treatment of schizophrenio, chap. 9, in *Psychopharmacology from Theory to Practice*, edited by Barchas JD, *et al.* New York, Oxford University Press, 1977, pp.134, 145. **3.** Domino EF: Antipsychotics: phenothiazines, thioxanthenes, butyrophenones, ond rauwolfio olkaloids, chop. 25, in *Drill's Pharmacology in Medicine*, ed.4, edited by DiPalma JR. New York, McGraw-Hill Book Company, 1971, p.476. **4.** Sovner R, DiMascio A: Extrapyramidal syndromes ond other neurological side effects of psychotropic drugs, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascio A, Killam KF. New York, Raven Press, 1978, p.1021. **5.** Donlon PT, Stenson RL: *Dis Nerv Syst 37:* 629-635, Nov 1976.

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Please see summary of product information on following page.

Your guide to patient management... when you decide medication is needed

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy.

Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) – bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

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How to initiate and maintain therapy

Select dosage strength appropriate for each patient

- ☐ Limbitrol 5-12.5 is recommended to minimize drowsiness and for elderly patients
- ☐ Limbitrol 10-25 may be indicated for patients who tolerate medication without undue side effects

Specify daily dosage based on symptom severity

- ☐ An initial dosage of three tablets is recommended
- ☐ Dosage may be increased to six tablets or decreased to two tablets daily as necessary
- ☐ Once a satisfactory response is obtained, patients should be continued on the smallest dose required to maintain the desired effect

Utilize dosage options to best accommodate individual patient needs

- ☐ T.I.D. or Q.I.D., familiar regimens most suited for patients who tolerate medication without undue drowsiness
- ☐ Two tablets one hour before bedtime and one tablet midday may minimize daytime drowsiness and help relieve a common target symptom – insomnia
- ☐ Entire dosage h.s. to take maximum advantage of the sedative effect

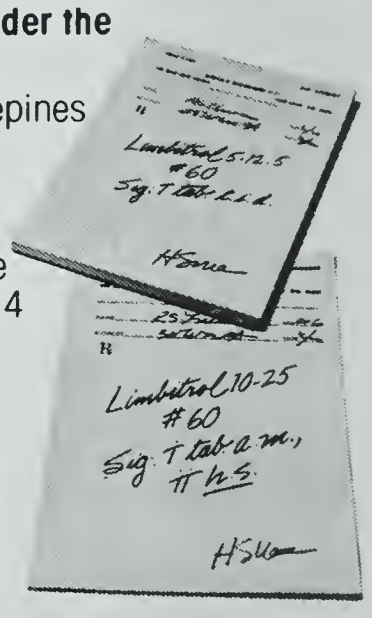
How to make each patient an informed patient

1. Discuss with patients the probability that they will experience drowsiness, especially during the first week.
2. Reassure your patients that drowsiness is one indication that the medication is working and that it may help alleviate their insomnia.
3. Encourage patients to report if drowsiness becomes troublesome so that, if necessary, dosage schedule can be adjusted.
4. Caution patients about the combined effects with alcohol or other CNS depressants. Let them know that the additive effects may produce a harmful level of sedation and CNS depression.
5. Caution patients about activities requiring complete mental alertness, such as operating machinery or driving a car.
6. Warn pregnant patients and patients of childbearing age that the safety of Limbitrol in pregnancy has not yet been established.

Please see complete product disclosure for other pertinent information.

Limbitrol should not be used under the following circumstances:

1. Hypersensitivity to benzodiazepines or tricyclic antidepressants.
2. Concomitantly with an MAO inhibitor. To replace an MAO inhibitor with Limbitrol, discontinue MAO inhibitor for a minimum of 14 days before cautiously initiating Limbitrol therapy.
3. During the acute recovery phase following myocardial infarction.



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Anxiety: the therapeutic dilemma



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Unique interactive format offers direct participation Filmed case presentations provide source material for participant interaction — to demonstrate keys to differential diagnosis and clarify guidelines for selecting appropriate drug and non-drug therapies.

Program Topics and Faculty

The Clinical Spectrum of Anxiety	Michael J. Halberstam, MD, Private Practice, Internal Medicine and Cardiology, Washington, DC; Editor, Modern Medicine; Associate Clinical Professor of Medicine, George Washington University Medical Center
Anxiety: Etiology and Dynamics	Sidney L. Werkman, MD, Professor of Psychiatry, University of Colorado School of Medicine
Differential Diagnosis of Anxiety	Robert E. Rakel, MD, Professor and Head, Department of Family Practice, The University of Iowa College of Medicine
The Problem of Drug Dependence	David H. Mielke, MD, Associate Professor of Psychiatry, Tulane University School of Medicine
Pharmacology and Pharmacokinetics of the Minor Tranquilizers	Leo E. Hollister, MD, Professor of Medicine, Psychiatry and Pharmacology, Veterans Administration Medical Center and Stanford University School of Medicine
Benzodiazepine Receptors	Solomon H. Snyder, MD, Chairman & Professor, Department of Neuroscience, Distinguished Service Professor of Neuroscience, Psychiatry and Pharmacology, The Johns Hopkins University School of Medicine
Management Approaches to the Patient With Anxiety	Julius Michaelson, MD, Past President, American Academy of Family Physicians
Tranquilizers: Guidelines for Appropriate Use	Robert E. Rakel, MD, Professor and Head, Department of Family Practice, The University of Iowa College of Medicine
Non-Drug Treatment Alternatives	Sidney L. Werkman, MD, Professor of Psychiatry, University of Colorado School of Medicine
	Other members of the symposium faculty, from the Tulane University School of Medicine, include John W. Goethe, MD and Daniel K. Winstead, MD.

Eight credit hours in Category 1 for PRA/AMA, Prescribed hours by AAFP, Category 2-D of AOA and/or Formal Learning cognates of ACOG will be awarded.

Anxiety: The Therapeutic Dilemma is being produced in collaboration with Tulane University School of Medicine, Department of Psychiatry and Neurology, by M.E.D. Communications, under an educational grant from Abbott Laboratories.

A

Office of Continuing Education, Tulane Medical Center,
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Please send full information about the symposium
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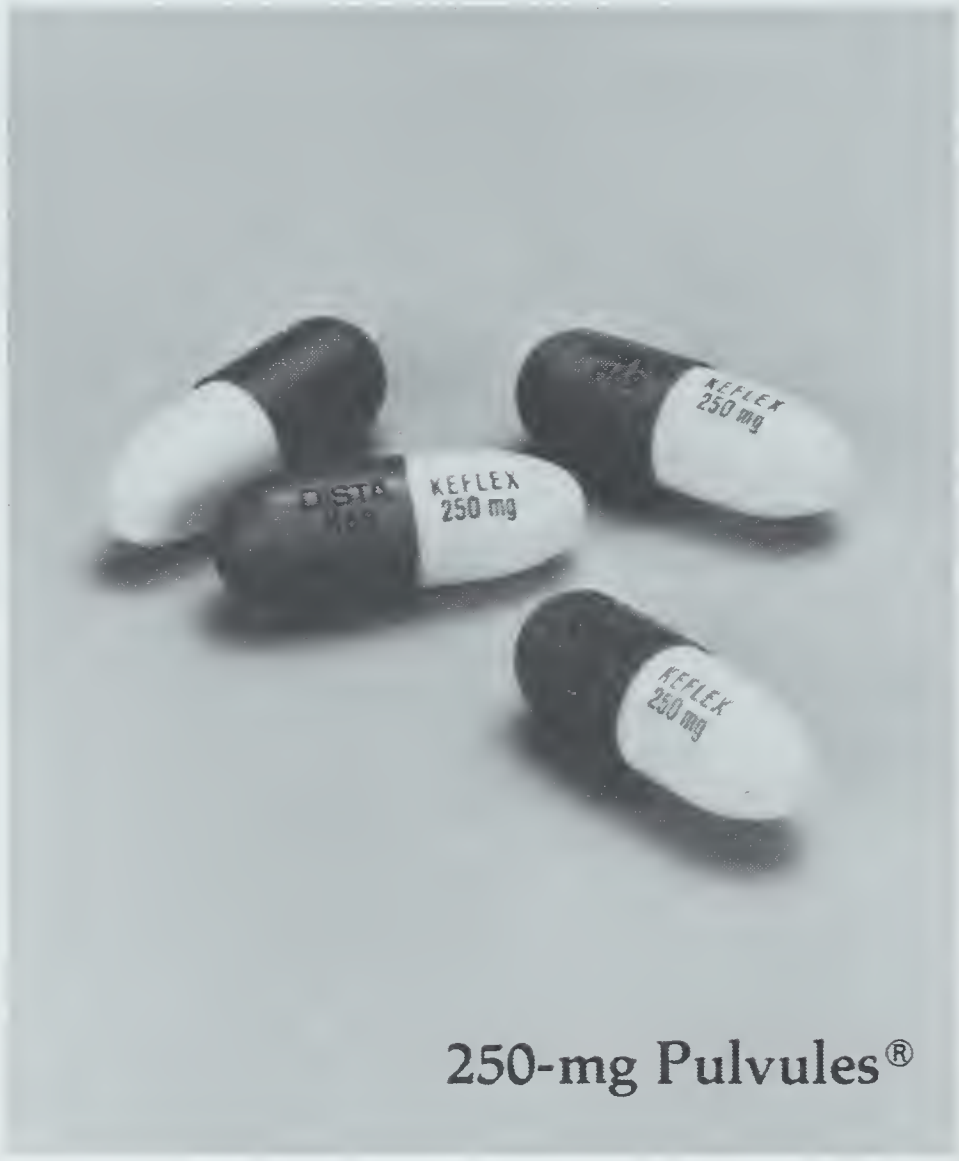
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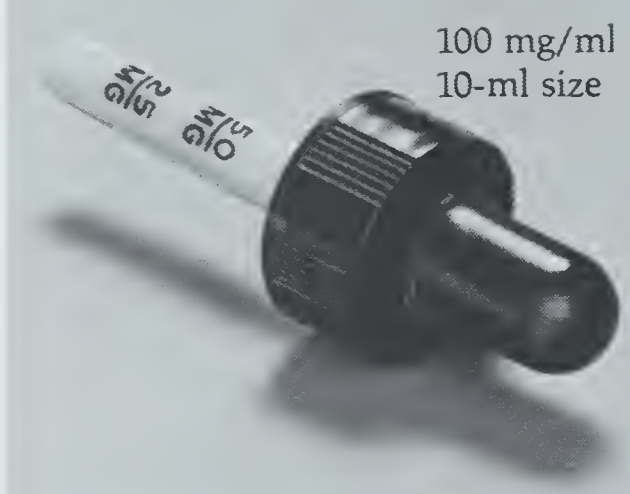


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An Old Medical Specialty Puts on a New Face . . . and Head . . . and Neck

E. Gaylon McCollough, M.D., Birmingham
Jack R. Anderson, M.D., New Orleans

While medicine has made tremendous progress during the past 50 years a quiet evolution has been occurring in one of medicine's most venerable specialties, the second to organize an American board for certification purposes. It may have gone unnoticed by most others in the medical profession, deeply engrossed in their own progress and problems.

That inexorable change was brought into dramatic focus in October, 1980, when two of the most prestigious bodies representing the specialty—the American Council of Otolaryngology and the American Academy of Otolaryngology—changed their names to the American Council of Otolaryngology—Head and Neck Surgery and the American Academy of Otolaryngology—Head and Neck Surgery.

The American Board of Otolaryngology has decided to seek permission of the American Board of Medical Specialists to change its name to the **American Board of Head and Neck Medicine and Surgery.**

Thus, after about 50 years of gradual metamorphosis, otolaryngology is on the verge of acquiring an identity that clearly reflects its transformation from an organ specialty into a modern regional specialty.

Early Otolaryngologists

The early otolaryngologist spent most of his time fighting the effects of infection and, secondarily, neoplasia. He had pitifully few weapons.

The advent of antibiotics and chemotherapeutic agents changed the character of otolaryngology during the 1950s. Since most infections could be controlled early in their development and eliminated, the need for surgical drainage and excision of diseased tissue was sharply reduced.

Now otolaryngologists could devote themselves to areas which had received less attention because of their preoccupation with saving lives by fighting infection.

The control of infection and allergy made sophisticated ear operations possible. One exciting technical development after another ensued, until now even tumors of the eighth nerve are being removed via a temporal bone approach. Extensive reconstructive procedures are carried out to correct congenital, surgical and traumatic defects and to provide functional and cosmetic improvement.

As the incidence of head and neck cancer increased, it was only natural that patients with this disease consulted the otolaryngologist first. Thus he became the primary physician in the management of head and neck cancer. It has been estimated that the otolaryngologist does 95% of the head and neck cancer operations in the United States today.

Involvement of the otolaryngologist in plastic and maxillofacial surgery has been of long standing. In 1888, Rowe, an otolaryngologist of Rochester, New York, reported the first endonasal rhinoplasty. Sir Harold Gilles, an otolaryngologist, is recognized the world over as the "father of plastic surgery." An otolaryngologist was among the founding members of the American Board of Plastic Surgery in 1939, 14 years after formation of the American Board of Otolaryngology.

Finally the treatment of injuries to the facial skeleton and their complications often falls to the otolaryngologist because he is qualified by training and experience to handle them.

Scope of the Modern Specialist

Training is one essential cornerstone of a physician's competence. More than 1,000 physicians are enrolled in approved otolaryngology residency training programs at present. Approximately 330 of those physicians complete training each year and enter practice.

Many programs have been broadened and strengthened over the years to include training in plastic and reconstructive surgery, head and neck oncology, rhinology, laryngology, bronchoesophagology, otology, and allergy.

To provide for even more highly qualified specialists, this American Board in 1978 recommended that a fifth year of training be required for board certification. This additional training is expected to help meet growing needs in patient care, teaching, and research.

Postgraduate continuing education sessions have spawned excellence in soft tissue surgery, refinements in major oncologic surgery with use of all the necessary reconstructive technics, extensive experience in flap reconstruction and free flap transfers, research in wound healing, and more experience with the growth and development of the facial skeleton and related structures.

Continuing education has also led to new and improved techniques in blepharoplasty, rhytidectomy, rhinoplasty, and reconstruction of major head and neck deformities, leading to improved results.

Requirements for Certification

Since it is this American Board's philosophy that the specialty should move ahead on a broad front, the examination it conducts has been carefully devised to evaluate the candidate's knowledge in the broad spectrum of head and neck medicine and surgery.

About 25% of the questions on written and oral examinations are devoted to plastic and reconstructive surgery, another 25% to the head and neck oncology, about 25% to otology, and the remaining 25% to general otolaryngology.

As might be expected, an increasing number of otolaryngologists tend to specialize according to their particular interests or ability and accessibility of clinical material. Thus, there are individuals whose practice, or a large part of it, is devoted to a subspecialty area such as plastic and reconstructive surgery of the face, head and neck, oncology, otology or bronchoesophagology, etc.

Interest in facial plastic, maxillofacial and reconstructive surgery is particularly strong. This interest is understandable because the practice of general plastic surgery stems largely from the specialty of otolaryngology.

Furthermore, the resident in otolaryngology gains a special competence in head and neck plastic and reconstructive surgery because he is familiar with the anatomy, physiology, and pathology of that region, having spent his entire residency training within this area of the body.

A New, More Fitting Identity

Since specialization was first recognized, there has been a trend toward regionalization. Other medical and surgical specialties, such as ophthalmology, neurosurgery, urology, obstetrics, and gynecology have recognized this concept having become specialists of organ systems or regions. The rest of those in medicine and the public understand the scope of their discipline.

While otolaryngology has traditionally been designated as the Ear, Nose and Throat or ENT specialty, other medical specialties have no such problem. Ob-gyn specialist, for example, are not called Ovary, Uterus, and Vagina men, nor is the specialty known as OUV. Urologists are not known as Kidney, Ureter, and Bladder men, nor is the specialty known as KUB. Neurosurgeons are not known as Nerve, Brain and Cord men, nor is their specialty known as NBC.

Certainly the letters "ENT" or the words "ear, nose and throat" do not encompass surgery of the salivary glands, oral cavity, lips or peripheral facial nerve; nor do they include facial fracture repair, or pedicle flap procedures from the chest, shoulders, forehead, scalp and cheek, or mentoplasty, rhytidectomy, blepharoplasty, eyelid repair after tumor removal, mandibular surgery, facial implants, scar revision, bronchoscopy and mediastinoscopy to mention a few.

After years of growth and expanded scope, the specialty has decided to look at itself and recognize, with a name change, its evolution.

The Specialty's Future

It is abundantly clear that today's well trained otolaryngologist is no longer an ear, nose and throat physician. He is a head and neck physician who has mastered the surgical skills in his area, one who can effectively manage many of the myriad applications in the head and neck, whether it is a nosebleed or an extensive cancer operation.

On the other hand, the specialty is clearly constructed of subspecialty building blocks (oncology, otology, plastic, reconstructive and maxillofacial, endoscopy, etc.). This emphasis on a particular interest, with associated intensive training, and control of much clinical material, lends itself to superspecialization. This trend will produce the higher quality care that Americans have shown they want.

Many otolaryngologists have been working in cooperation with organized medicine for years to prepare for the dawn of these exciting times. The only remaining step was to select a name for this regional specialty. That step has been taken. Otolaryngology will be known in the future as Head and Neck Medicine and Surgery—a title that is certainly more fitting.

In G.I. therapy



Adjunctive Librax®

Each capsule contains
5 mg chlordiazepoxide HCl
and 2.5 mg clidinium Br

antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer*
and irritable bowel syndrome*

Librax®

Please consult complete prescribing information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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The first prescription for the first days of acute pain

Empirin® c̄ Codeine #3

Each tablet contains: aspirin, 325 mg; plus codeine phosphate, 30 mg, (Warning — may be habit-forming). Ⓒ III

For the millions of patients who need the potency of aspirin and codeine for their acute pain.

The pain of fractures, strains, sprains, burns and wounds is at its peak during the first three to four days following trauma. The potent action of Empirin c̄ Codeine begins to work within 15 minutes of oral administration, an important advantage during this acute pain period. Empirin c̄ Codeine has unique bi-level action to attack pain at two critical points: peripherally at the site of injury and centrally at the site of pain awareness.

For the most effective dosage in treating acute pain, begin with ... two tablets of Empirin c̄ Codeine #2 or #3, every four hours. Titrate downward as pain subsides.

EMPIRIN® with Codeine

Ⓒ III

DESCRIPTION: Each tablet contains aspirin (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No. 3 — 30 mg, and No. 4 — 60 mg. (Warning — may be habit-forming.)

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies: patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

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Exposure to Lead:
Sources and Neuropsychological Dysfunction

NAGESWARA RAO CHAVA, M.B.B.S.
Clinical Instructor in Medicine,
University of Alabama in Birmingham
Staff Physician, Department of Medicine,
Veterans Administration Medical Center
Montgomery, Alabama

Abstract:

Increased public awareness and stepped up preventive measures resulted in the decline of the number of cases of clinical lead intoxication, but asymptomatic undue lead absorption in infants and young children continues to be a major health problem throughout the world. The sources of lead exposure are multiple and abundant in the environment. The manifestations of lead intoxication include anemia, abdominal colic, encephalopathy, and neuropathy. The subject of neuropsychological manifestations due to subclinical lead exposure is heatedly debated and is far from being conclusive.

Case Report:

A 58 year-old-man was transferred to the Montgomery Veterans Administration Medical Center, from a local emergency room, on 11-15-78, with the history of convulsions and an episode of unresponsiveness. No information was available regarding the onset of the symptoms of previous health.

The physical examination revealed a confused, restless and disoriented male, without neck rigidity or evidence of trauma. Pulse and temperature were 130 per minute and 101°F respectively. Initial blood pressure was 200/120 mm Hg. Left eye was completely blind, with hyphema and nonreactive pupil. Right pupil was reactive and the optic disc was clear. Heart and lungs were normal. He was moving all extremities, sometimes violently and had slight increase in muscle tone and diminished deep tendon reflexes. There were no localizing neurological signs. He was intermittently lithargic and restless, but did not have any further convulsions.

Initial laboratory workup revealed the following values: WBC count, 10,000; Hematocrit, 47.3; Negative RPR; many RBC in urine with trace proteinuria and ketonuria; Serum glucose, 118; BUN, 7; Sodium, 142; Potassium, 3.7; Calcium, 9.7; Phosphate, 4.1; SGOT, 70; CPK, 1674; ph, 7.39; PO_2, 90; PCO_2, 43. SGOT, CPK and LDH rose to the maximum levels of 518, 42,000, and 1420 respectively, and returned towards normal range after more than 10 days. He received several intramuscular injections. The electrocardiogram did not show any evidence of acute myocardial infarction. Roentgenogram of the chest was normal. Several blood cultures and a urine culture did not grow any pathogenic organisms. Spinal fluid contained, proteins, 55 mgs; glucose, 107; RBC, 3; and to leukocytees. Spinal fluid culture was negative. A Tc99m labeled glucoheptenate brainscan showed delayed transit and distribution of the left middle cerebral artery and normal static images.

The patient mentioned that he was drinking "moonshine." Serum lead level was 95 mg. % and 24-hour urine lead was 224 mg., both being elevated. Spinal fluid lead was negative. In addition to the other supportive treatment, he received calcium disodium versenate, followed by pencillamine. Following the treatment, blood lead level dropped to 48 mg. percent and 24-hour urine lead level climbed to 2548 mg. Subsequent urinary lead level was 64 mg. Except for pruritis, he did not develop any adverse side effects. His mental and physical condition markedly improved without any residual manifestations and was discharged.

He was seen six months later, in the medical clinic, in good physical condition, except for degenerative arthritis of the spine. He quit drinking during this period.

Discussion

SOURCES: The sources[1] of lead exposure and multiple and varied. They can be in the form of environmental pollutants, occupational hazards, or common household materials. In addition to the close proximity of the sources, the bioavailable depends on the age of the subjects, form of lead, route of absorption, presence of other components in the diet and the metabolic state of the persons.

At normal levels of lead exposure, adults receive about 50-250 micrograms of lead per day, whereas

infants and children receive about 75-120 micrograms of lead per day, from the dietary sources. Another ubiquitous source of lead is air, which is polluted by automobile emissions and dust containing lead of small particle size from old paint. Water may occasionally be an added source if the water distribution system contains lead pipes.

In children, particularly those with pica, high levels and lead exposure occurs with paint, street dust and sources such as putty or plaster. Even though old house paint remains to be a problem, new paints for household use contain less than 0.06 percent of lead. Children in the homes of lead industry employees may be at an added risk. Other domestic sources of lead include, certain ceramic dinnerware, decorative decals and glazes on some glasses, lead soldered electric kettles, lead contaminated health foods, burning of paper logs in fireplaces, colored newspapers and curtain weights.

Battery manufacturing, battery reclaiming, mining, smelting, construction, demolition, painting, brass polishing, printing, ammunition, petroleum, ceramic and glass are some of the innumerable industries, where workers are exposed to larger amounts of lead, unless preventive measures are strictly enforced. Illicit alcohol and inhalation of leaded gasoline can be major sources of lead in adolescents and adults of certain communities. Firearms instructors and trainees may be exposed to lead sometimes in large amounts, in indoor fire ranges with insufficient ventilation. Some rare and exotic sources of lead reported in the literature include, aphrodisiacs, surma (eye cosmetic) and Chinese herbal medication.

Neuropsychological Manifestations:

Encephalopathy[2]: The vulnerability of children, for the development of encephalopathy and the residual impairment of central nervous system function, following clinical lead intoxication, is well known. The symptoms may include ataxia, generalized weakness, dizziness, headacke, irritability, mania, delerium, intermittent lithargy, stupor, coma, and convulsions. Optic atrophy, auditory defects and vertigo may occur. Cerebellar, extrapyramidal and spinal cord involvement, have been reported in adults, as acute manifestations, as well as sequelae following encephalopathy.

Adults are likely to develop encephalopathy, following Tetraethyl lead exposure and consumption of illicit alcohol.

Neuropathy[3]: In contrast to the development of lead encephalopathy, which is more common in children, lead neuropathy is observed more commonly in adults. Even though sensory symptoms like tingling and numbness have been reported, the neuropathy associated with lead intoxication is principally motor oriented and is usually asymmetric, with involvement of functional muscle groups such as, extensor muscles of upper extremities. Wrist drop, finger drop, weakness of shoulder girdle muscles and foot drop may occur. Atrophy of the muscles may result if not promptly treated. Deep tendon reflexes have been reported to be exaggerated in some and diminished in others.

Motor nerve conduction velocity may be used to detect early manifestations of lead neuropathy.

Development and behavior: Permanent mental and neurological sequela were noted in excess of 25% of the children who have suffered from lead encephalopathy. The sequela include mental retardation, convulsions, cerebral palsy, optic atrophy, and behavioral as well as learning disorders. Children who were treated for lead intoxication without encephalopathy may also suffer from low I.Q., impulsive behavior and neurological impairment.

The subject of subclinical levels of lead exposure and effects on behavior and intelligence has been extensively studied and heatedly debated in the literature. Some authors[4], [5], [6] have suggested association between subclinical lead exposure and mental retardation, impaired I.Q., impairment of visual and fine motor coordination, and behavior abnormalities. Other[7] found no relationship between lead level and behavioral and learning deficiencies. This subject has been reviewed[8],[9] and the studies supporting either end of the spectrum have been criticized for their methodologic deficiencies. Despite the controversy, it is very likely that neuropsychological manifestations will be produced when lead exposure occurs in perinatal period or early childhood and when blood lead level approaches toxic range.

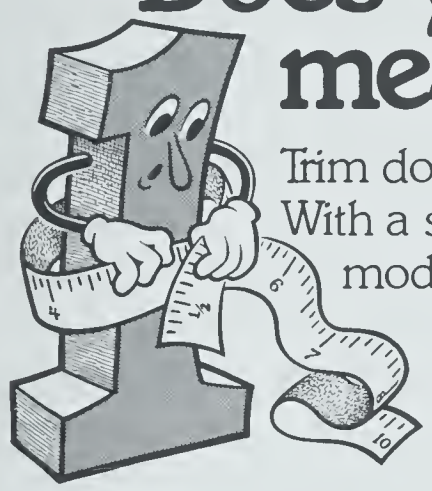
There is presently no evidence to incriminate subclinical levels of lead exposure to abnormal behavior in adults.

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7 ways to feel good and live longer

Does your figure measure up?



Trim down your excess weight. With a sensible diet. And regular, moderate exercise.

What's for breakfast?



It's the most important meal of the day. Don't miss it.

Do you work on balanced meals?



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Don't. Moderate exercise about three times a week can make you feel better.

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PROFILE

Dr. Ed Givhan
The Complete Gardener

By William H. McDonald

On the facing page, Edgar G. Givhan II, M.D., recounts the end product of a saga of green thumbery that began in medical school and ended with his becoming the horticultural author & publisher of a book on South Alabama gardening that may yet hit somebody's best seller lists.

It began for Dr. Givhan and his wife while in medical school in St. Louis. They lived, as did other medical students, in conditions of near-squalor in a "quasi-slum" area that didn't have a blade of grass in it until they decided to do something about that.

The first of their five children was then one-year-old. While they could survive the world of asphalt and gravel that surrounded their humble home (a parking lot and a used car lot was their vista), they wondered about the effect on their young son.

The Givhans cadged a corner of the parking lot from the owner, whereon to plant a token plot of grass. New at this sort of thing, they were amazed when the grass actually came up. So, were the other apartment dwellers, who immediately began plunging seed and bulbs into the good earth the Givhans had discovered.

Impressed by this modest beautification program, young Dr. Givhan carried his interest with him to his residency in Nashville, thence to Montgomery, where he has practiced since 1966.

Immersing himself in the available literature, he discovered, as many others have, that most gardening books, excellent as they may be, were written in New England or California. Their technical advice doesn't travel well. What works in Bangor or Orange County usually doesn't in South Alabama. (And the other way around of course: he has a friend in Boston who has made heroic efforts to grow honeysuckle, of all things, without success.)

It was to remedy this for himself that Dr. Grivhan set about keeping meticulous records of everything he planted—when, where, and what conditions of soil, light and moisture, etc., with clinical notes on successes and failures.

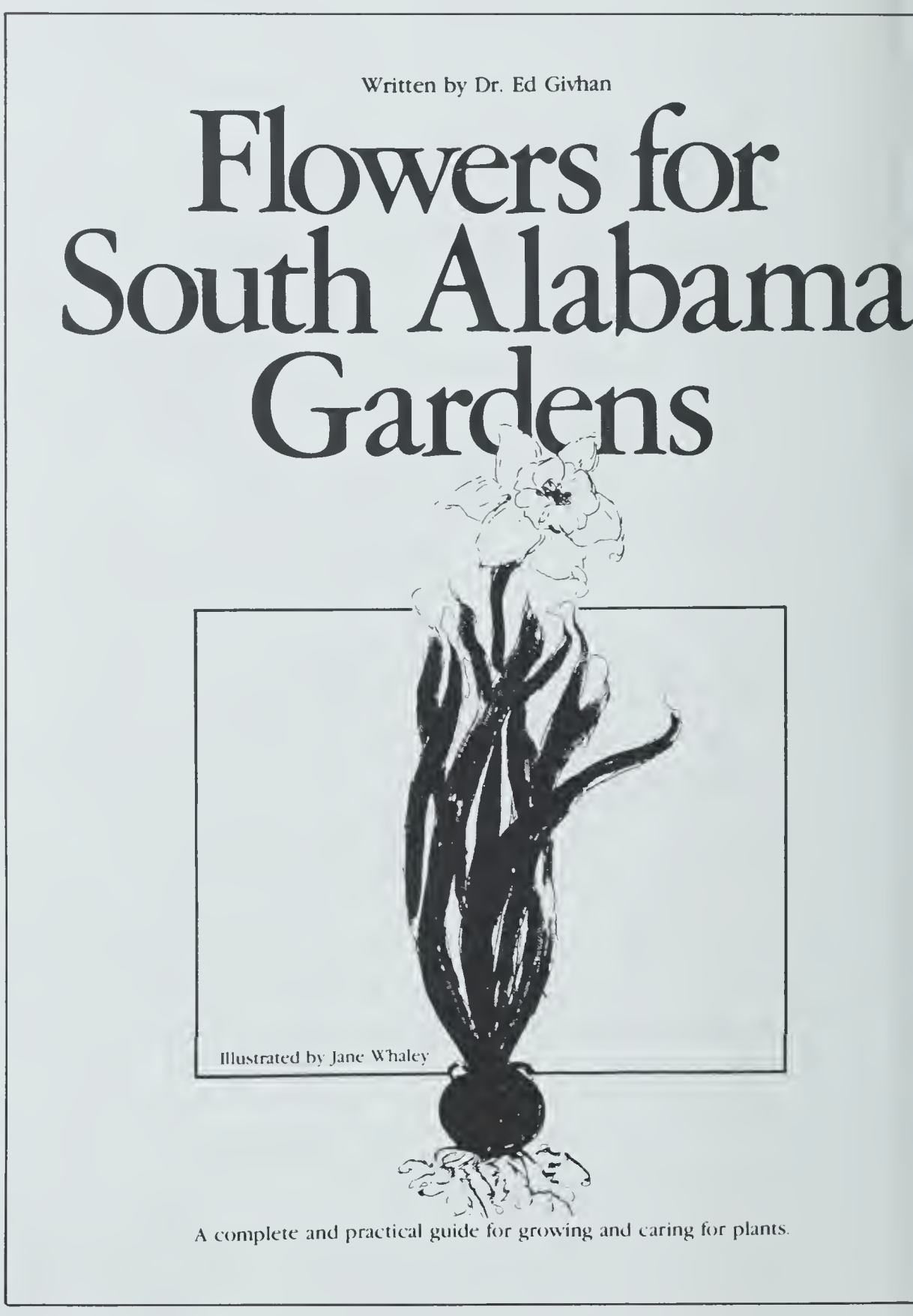
The notes expanded and developed a life of their own. He decided a published account of his findings would save others many a disappointment.

Flowers For South Alabama Gardens, out just before Christmas, has already had a brisk sale, as Dr. Givhan reveals in his accompanying article, although he is not likely to crack the major national best seller lists unless he follows the puckish advice of his wife and writes a book entitled **Sex In The Greenhouse,** with lurid dust jacket.

Dr. Givhan gardens because he loves it. He has written what he learned because he felt an obligation to share his hard-won knowledge with other gardeners. He is convinced that everyone in sub-tropical Alabama can have beautiful flowers 12 months a year with a little dedication to the scientific principles he has set forth—all drawn from trial and error, empirical testing, and what can be best described as pragmatic horticulture.

A copy of Dr. Givhan's highly useful book, **Flowers for South Alabama Gardens,** attuned to the climate and soil of all areas from below the Tennessee Valley to Mobile Bay, may be ordered for $8.95 plus $1.00 for postage and sales tax from:

Black Belt Horticultural Research
P.O. Box 11516
Montgomery, Alabama 36111.



Publishing Your Own Book

By Edgar G. Givhan, II, M.D.

Bill McDonald tells me that many physicians harbor incomplete books that they are reluctant to publish. Reluctant not because they have doubts about the worth of their **magnum opus** but because they are intimidated by the mechanics and economics of having a book published.

Having just passed through this maze, I will share some of my hard-bought knowledge with you. Some of my best information came early on from Don Dodd, a history professor at Auburn University in Montgomery, who has published a number of scholarly books on Alabama history. Don pointed out that one should classify his book in one of three classes:

1. A book with wide appeal which would sell tens of thousands of copies;
2. A scholarly book with a small potential readership; and,
3. Something intermediate between 1 and 2.

In the first case, one would have to attempt to sell his book to one of the national or regional publishing houses because only they have the wherewithal to market a book on this scale. Chances of selling such a book would be small as would be your percentage of the profit.

In the second situation (the scholarly tome) one would not hope to make money or even break even. The game becomes how you can get your message into print while cutting your losses. You could go to one of the university presses. They would circulate your manuscript to several critics around the country.

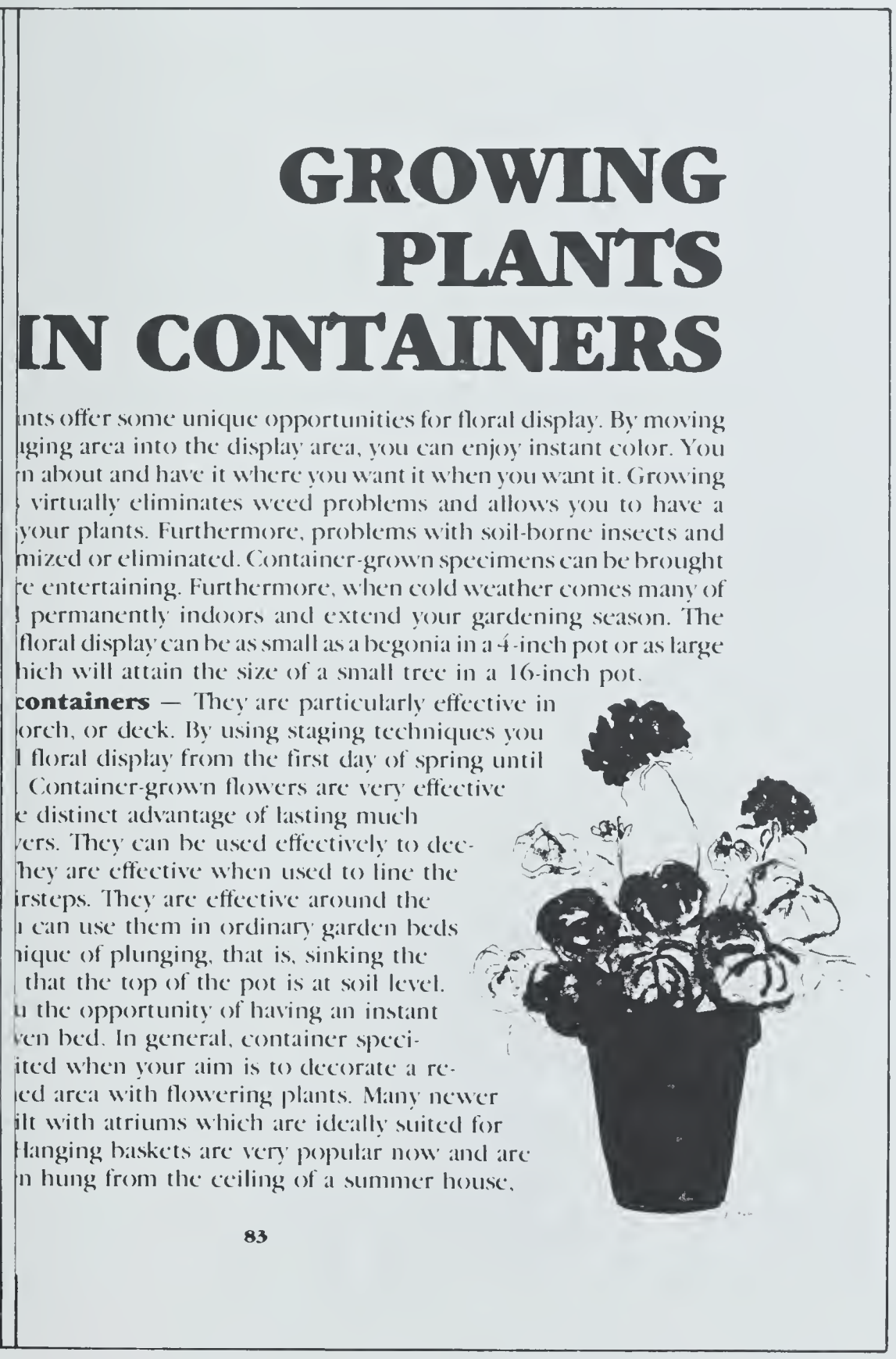
Expect a severe editing and a high rate of rejection! Also, they may not distribute your book in the way you had imagined. Alternatively you could pay to have your scholarly tome printed. Costs can be trimmed by use of paperback binding, inexpensive layout and paper, and by avoiding color illustrations. Distribution of this type of book becomes a problem since you have no mechanism to accomplish it.

Alas, people don't beat a path to your door to pick up your book.

Impact Area

My book fell in the third category. I estimated that it would sell in an area from Birmingham south to the Gulf. There are probably 200,000 (or more) people interested in gardening in this area and I would break even if I could sell to 2% of this market. Since my book is unique to the area, it would achieve a higher penetration of the market than the average gardening book. At this point I don't know how accurate my projection was, but I reached 30% of my goal (number of sales necessary to break even) within the first two weeks of sales (the book was marketed only in the Montgomery area).

If you publish your own book you must first consider design. There are many things that go into making an attractive, readable book that you never considered. All printers are **not** expert at design. In my case I went to an ad agency, which handled the design of the book. Then it was submitted to the printer. The initial printing is much more expensive than subsequent runs. Once you have a price for the cost of design, proof reading (you can't do that yourself), the initial printing and subsequent printings, you can readily estimate the number of sales necessary to re-coup your initial cost.



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nts offer some unique opportunities for floral display. By moving
ging area into the display area, you can enjoy instant color. You
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mized or eliminated. Container-grown specimens can be brought
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permanently indoors and extend your gardening season. The
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hich will attain the size of a small tree in a 16-inch pot.

containers — They are particularly effective in
orch, or deck. By using staging techniques you
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e distinct advantage of lasting much
vers. They can be used effectively to dec-
hey are effective when used to line the
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nique of plunging, that is, sinking the
that the top of the pot is at soil level.
u the opportunity of having an instant
ven bed. In general, container speci-
ited when your aim is to decorate a re-
ed area with flowering plants. Many newer
ilt with atriums which are ideally suited for
Hanging baskets are very popular now and are
n hung from the ceiling of a summer house.

83

At least I thought I could, but I was dead wrong. There are a few more parameters in that equation. You must consider the cost of marketing, delivery and the retailer's profit. Expect the retailer to take 40% of the suggested list price of the book. Oops! That's another parameter: what should be the list price that will give you maximum return for your effort without running customers away? I went to book stores and priced about 50 comparable garden books before arriving at my "suggested price." Finally when all those variables were plugged into the equation, I learned that I would need to sell 4,000 to 5,000 books to recapture my investment; beyond that I will make a little profit on each book I sell. That seemed a reasonable expectation for my potential market. Even if I did not reach that sales goal I could write the loss off on my income tax.

Wrong Again

Alas, the latter notion proves to be wrong; the IRS is cagey about book sales. You are only allowed to recover printing costs on a per book basis **as you sell them.**

Having finally taken the plunge and brought your book into print, you run upon something totally unfamiliar to the average physician: marketing. Again, the public will not spontaneously beat a path to your door to buy your book. People need a nudge. This means advertising to create awareness and interest. I hired an ad agency to help me.

Careful here! Set up a budget and get prices in advance. There is a lot of free publicity available for books of local interest: book reviews, autograph parties, talks to garden clubs, interviews on local radio stations, newspaper interviews, etc. Some of this gets touchy since people may want "an exclusive."

Large retail outlets may advertise your book for you. The **quid pro quo** is that they'll want a quantity discount on the wholesale price. Incidentally, the large stores are not so interested in the profit they make on your book as they are the interest it generates, bringing customers into their store.

The second thrust of the marketing effort is making your book readily available to the public. You must decide on the geographic area in which you will distribute the book. Then you must identify the retail outlets in which you think your book will sell. I decided on garden centers, book stores, certain florist shops, a convenience store chain and one large department store chain.

My son went to the telephone company here in Montgomery (where they maintain a library of all Alabama phone books) and made a mailing list of all the appropriate retail outlets. Finally, the actual distribution of the books was done by my children. Since you have no billing mechanism try to collect cash on delivery (I probably did not need to say that). You must have a consistent pricing policy or you can be sued. Suggest a retail price but leave it to the discretion of the retailer. Do **not** print a retail price on the book. Finally, you can go after mail order sales. Include a mail order coupon in your books. You make more money per book on mail orders. Let your children do the busy work on this.

One more suggestion: make a display rack and sell the books in your office. It's good public relations and you get the full retail price. Office sales have been quite brisk.

Worth the Anguish

All this may sound overwhelming. It is, but publishing the book has been one of the more fascinating and satisfying things I've done. I've met a lot of interesting people. I've learned a lot about the real world of business outside the cloister of my practice.

Good luck!

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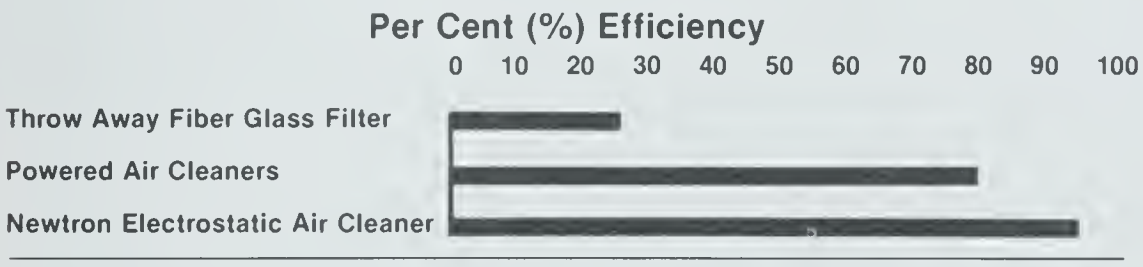
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The fur flew at MASA's Leadership Conference in Montgomery Jan. 16-17. AMA President Robert B. Hunter, M.D., standing at the lectern, heaped coals of professional indignation on the Federal Trade Commission, represented by Michael R. Pollard, J.D. Mr. Pollard's look of supplication, seated to Dr. Hunter's left, and his repeated plea that he was bearing an olive branch from the FTC, did him no good at all. Dr. Hunter and Alabama physicians stopped just short of riding Mr. Pollard out of town on a rail.

ASK WHAT'S SO GREAT ABOUT THE SHERATON-MOBILE AND YOU'LL GET 17 DIFFERENT STORIES.

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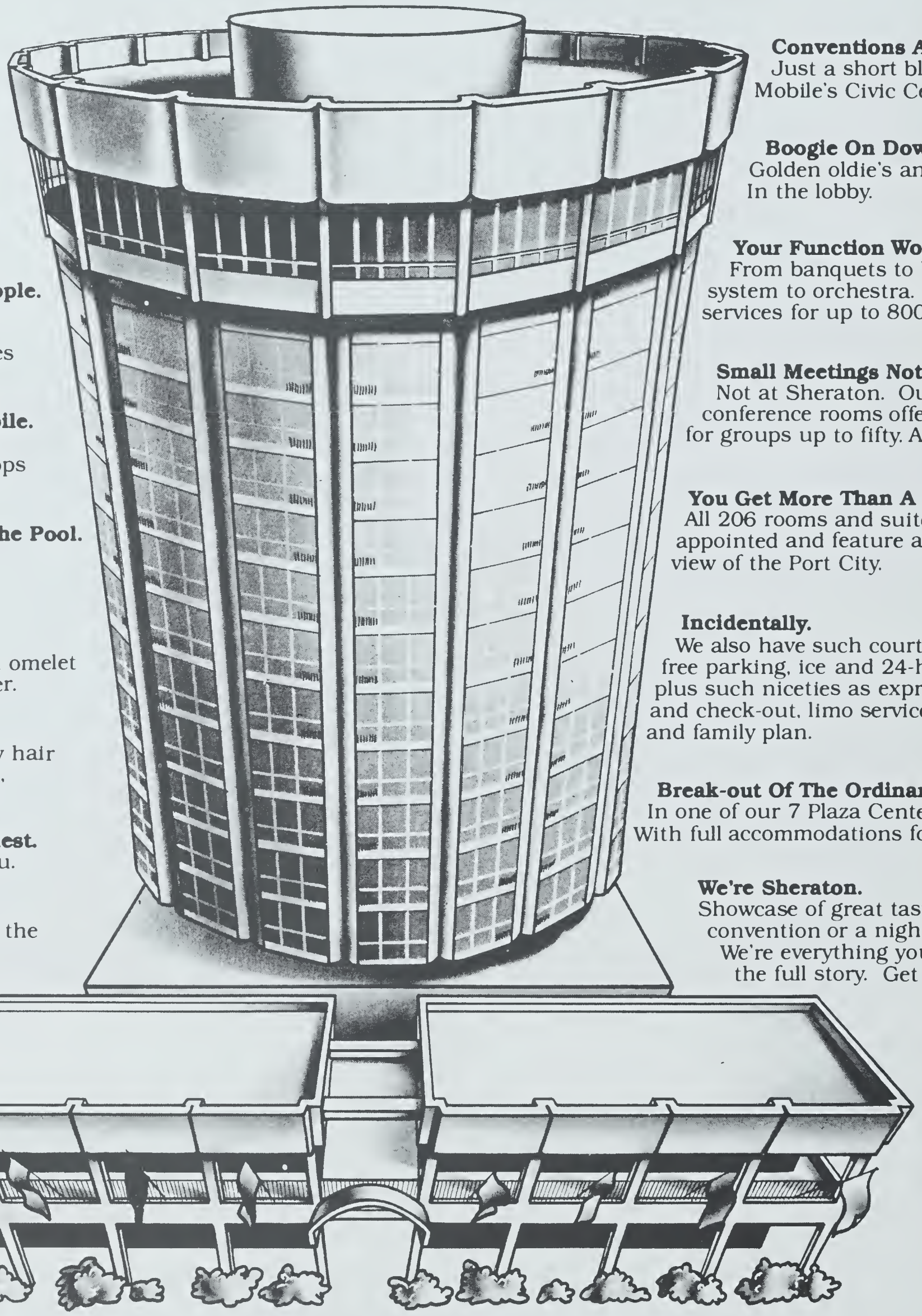
epen Your Tan And Dip In The Pool.
at more can we say.
the roof, 3rd floor.

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ytime's Is Open.
ve steak for breakfast and an omelet
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Eight F.P. Residencies

By G. Gayle Stephens, M.D.

I would like to acknowledge the cooperation and help of the following residency directors in gathering the information for this report: Neal Canup, M.D., Anniston; John Maloof, M.D., East End Hospital (Birmingham); Arnold Williams, M.D., Gadsden; Herbert Smith, M.D., Huntsville; Charles Moss, M.D., Montgomery; Donald Overstreet, M.D., Selma; Russell Anderson, M.D., Tuscaloosa.

The first provisionally accredited family practice residencies in Alabama were in Huntsville (1973) and Tuscaloosa (1974). Since then 6 additional programs have been developed:

Anniston	1976
East End Memorial Hospital (Birmingham)	1976
Selma	1976
Montgomery	1977
Gadsden	1978
UAB (Birmingham)	1978

All these programs are either owned by or have written affiliations with The University of Alabama School of Medicine and receive State appropriations. In addition there are family practice residencies at Carraway Methodist Medical Center (Birmingham) and University of South Alabama (Mobile). This report is about the eight UASOM programs only.

Residents

Cumulatively these 8 programs have provided graduate medical education for 244 residents since 1973 and produced 82 graduates, 43 of whom are practicing in Alabama (52.4%). In addition 6 non-graduates and 9 former faculty members from these programs are practicing in Alabama, making a total contribution of 58 family physicians in 7 years.

The remaining 39 graduates are practicing elsewhere, 17 in Alabama's continguous states (Tennessee 9, Mississippi 3, Georgia 2, Florida 2).

The State map (Figure 1) shows the current distribution of residency sites, graduates and participants by practice location. It can be seen that the northern and western halves of the State have benefited most, which is not surprising when one looks at the locations of the residencies. Huntsville is the largest metropolitan area for graduates but it is worth nothing that the addition of 8 new family physicians there has only equalled the number of family physicians lost through death and retirement in the same time period. Our experience so far indicates that family practice graduates will distribute themselves appropriately to population needs, both in rural and urban settings.

The growth in enrollment and distribution of residents by year are shown in Figure 2 and Table 1. We began with one resident in 1973 and by July 1, 1980 there are 126 residents in all 3 years of training in the 8 residences. The capacity of these programs is 153 residents, 51 at each year. Currently we have 47 first year residents representing a fill rate of 92%. Figure 3 shows the fill rate by year.

A steady state of 51 first year positions had been maintained for the past 3 years. If these continue to be filled at 92%, a reasonable expectation, and if the attrition continues at 14.7% (a little high), we can expect to graduate 40 new family physicians annually beginning in 1982. We expect to graduate 31 in 1981. Given the shortage of family physicians in the state and the expected attrition of currently practicing family practitioners, a large proportion of whom are over 50 years of age, there is no probability that we will overproduce family physicians in Alabama in this century.

Thirty-six (36) of 244 residents have dropped out of the programs (14.7%). These are shown by programs (Table 2):

Some of the dropouts are not entirely lost to Alabama since 6 are in practice in the State and 2 transferred to another Alabama family practice residency. Five (5) entered military service; seven (7) entered residencies other than family practice (internal medicine—1, psychiatry—1, ophthalmology—1, obstetrics—1, pediatrics—2, emergency medicine—1); one (1) became a missionary and nine (9) made miscellaneous decisions. (Table 3)

TABLE 1

	1973	1974	1975	1976	1977	1978	1979	1980	
Number of Residents									
PG-1	1	6	27	26	29	41	44	47	
PG-2	0	2	9	25	25	23	35	48	
PG-3	0	0	1	6	25	24	19	31	
Total	1	8	37	57	79	88	98	126	
									Total
Numbers of Graduates	0	0	0	3	12	21	27	19	82
Number of Dropouts	0	0	1	4	4	11	12	4	36
PG-1 Positions	12	24	24	28	35	51	51	51	

TABLE 2

Program	Total Residents	Dropouts
Anniston	22	6
East End	14	3
UAB	13	1
Gadsden	10	1
Huntsville	84	12
Montgomery	8	1
Selma	12	2
Tuscaloosa	81	10
	244	36 (14.7%)

TABLE 3

Practice in Alabama	6
Transferred to another Alabama family practice residency	2
Practice in Southeast	6
Entered military	5
Transferred to non-family practice residency	7
Missionary	1
Other	9

A summary of enrollment, graduates and dropouts by year is shown in Figure 4.

These data are interesting in the light of the sources for Alabama family practice residents, both the medical schools from which they were graduated and their home states. One hundred (100) residents were graduates of Alabama medical schools (UASOM, 77 and USA, 23); thus 41% of 244 residents attended medical school in Alabama. Ninety-two (37.7%) residents attended other medical schools in the southeast; 35 (14.3%) other U.S. medical schools and 17 (6.7%) were foreign medical graduates. (Table 4)

The home states of our residents follow a similar pattern and may be more significant than medical schools in determining location of practice. Ninety-four (38.5%) residents were from Alabama; 61 (25%) from contiguous states; 32 (13.1%) from southeastern states, and 57 (23.4%) from miscellaneous other states and foreign countries. (Table 5)

TABLE 4

SCHOOLS OF GRADUATION—ALABAMA FAMILY PRACTICE RESIDENTS

Residency	UASOM	USA	South-East	Other	Foreign
Anniston	5	0	12	1	4
UAB	3	0	6	4	0
East End	4	0	0	1	9
Gadsden	0	0	3	5	2
Huntsville	29	5	39	11	0
Montgomery	1	3	4	0	0
Selma	2	8	2	0	0
Tuscaloosa	33	7	26	13	2
TOTAL	77 (31.6%)	23 (9.4%)	92 (37.7%)	35 (14.3%)	17 (6.7%)

TABLE 5

HOME STATES OF ALABAMA FAMILY PRACTICE RESIDENTS

Residency	Alabama	Contiguous States	Other South-East States	Other
Anniston	2	8	6	6
UAB	2	5	2	4
East End	2	1	1	10
Gadsden	3	3	1	3
Huntsville	39	25	6	14
Montgomery	4	4	0	0
Selma	10	0	2	0
Tuscaloosa	32	15	14	20
TOTAL	94 (38.5%)	61 (25%)	32 (13.1%)	57 (23.4%)

It is clear from these data that the Alabama family practice residencies are importers of residents, drawing mainly from other southeastern states and that our retention of residents as practitioners exceeds Alabama's contribution whether by medical school (+11.4%) or home state (+13.9%). This is calculated by comparing the proportion of graduates practicing in Alabama (52.4%) with proportions of residents attending Alabama medical schools (41%) and home state (38.5%).

Funding

There is no doubt that the appropriation of State funds by the Alabama Legislature in 1971 was the catalyst for the initiation of family practice education, or that continued State support is necessary for the survival of the programs; however it should be acknowledged that the State budget in no way covers the costs of these programs. Table 6 shows the 1979-80 operating budgets of 6 programs and the sources of support. (Huntsville and Tuscaloosa are omitted from this figure because their budgets include their medical student programs and it is difficult to cost account their residencies accurately). What is worth noting especially is that State support accounts for only 37.7% of the total operational costs of these 6 programs and that local community support and practice earnings provide over 50%. Federal support, in

TABLE 6

OPERATIONAL BUDGETS

1979-1980

PROGRAM	STATE	FEDERAL	PATIENT CARE	LOCAL	TOTAL
Anniston	$230,000	$105,000	$250,000	$243,000	$828,000
UAB	210,000	100,432	86,576	216,096	613,104
East End	210,000	—	100,758	292,039	602,797
Gadsden	247,154	143,618	78,000	285,828	754,600
Montgomery	210,000	110,000	65,000	77,106	462,106
Selma	342,000	18,750	230,000	3,000	593,750
TOTAL (6 programs)	$1,449,154 37.7%	$477,800 12.4%	$810,334 21%	$1,117,069 29.1%	$3,854,357 100.2%

spite of general impressions to the contrary, provides only 12.4%.

It is impossible to overestimate the importance of local support, most of which comes from the affiliated community hospitals, which ordinarily pay a portion of residents' salaries and assist in the operation of the family practice centers. This is a mutually beneficial arrangement because the residents provide services to hospitalized patients and the family practice center is an important source of admissions, consultations and referrals. Moreover, there are considerable informal benefits to the hospital that accrue from an educational program that involves all specialties in the teaching and learning. The necessary residents' conferences provide a local source of continuing medical education credits. Not a single hospital could now give up its family practice residency without a real loss to its patient care and a diminution in its educational climate.

All fees from patient care are utilized fully in the budget. These range from a high of 38.7% of total program costs at Selma to a low of 10.3% at Gadsden. The amount from patient fees varies with the developmental stage and age of the program, but at a steady state of full development it is not unreasonable to expect that fees will cover about 35% of program costs. When this figure exceeds 40% the education of residents tends to suffer because of excessive service commitments. There is a good deal of nationwide experience now to verify these statements.

While each of the family practice centers operates on a fee-for-service basis, inevitably the faculty and residents render a greater amount of care to indigent and Medicaid patients than is ordinarily true in an exclusively private practice.

A look at the capital budgets (Table 7) reveals even more strikingly the contributions that local hospitals and communities have made to their family practice residencies. Neither the State nor the Federal Governments have invested capital monies in buildings and equipment, yet the capital costs for the 6 programs has been $3,782,374. This does not reflect the new facilities at UAB which will be occupied in September 1980. UAB, Montgomery and East End Hospital have operated their programs out of leased facilities; the costs of leasing is included in operational costs.

It is difficult to estimate the total economic impact of the family practice residencies on the state, both as a consumer and as a generator of funds. The family practice centers employ significant numbers of nurses, technicians and assistants and they purchase services

TABLE 7

CAPITAL BUDGETS

1973-1980

PROGRAM	BUILDINGS	RENOVATIONS	EQUIPMENT	TOTAL
Anniston	$1,000,000	$200,000	$165,170	$1,365,170
UAB	—	125,000	217,835	342,835
East End	60,000	25,600	43,643	129,243
Gadsden	1,300,000	—	169,266	1,469,266
Montgomery	—	—	105,000	105,000
Selma	270,000	—	100,860	370,860
TOTAL (6)	$2,630,000	$350,600	$801,774	$3,782,374

GEOGRAPHIC LOCATIONS
GRADUATES, NON-GRADUATES AND FORMER FACULTY FAMILY PRACTICE RESIDENCY PROGRAMS AFFILIATED WITH THE UNIVERSITY OF ALABAMA SCHOOL OF MEDICINE

JULY 1, 1980

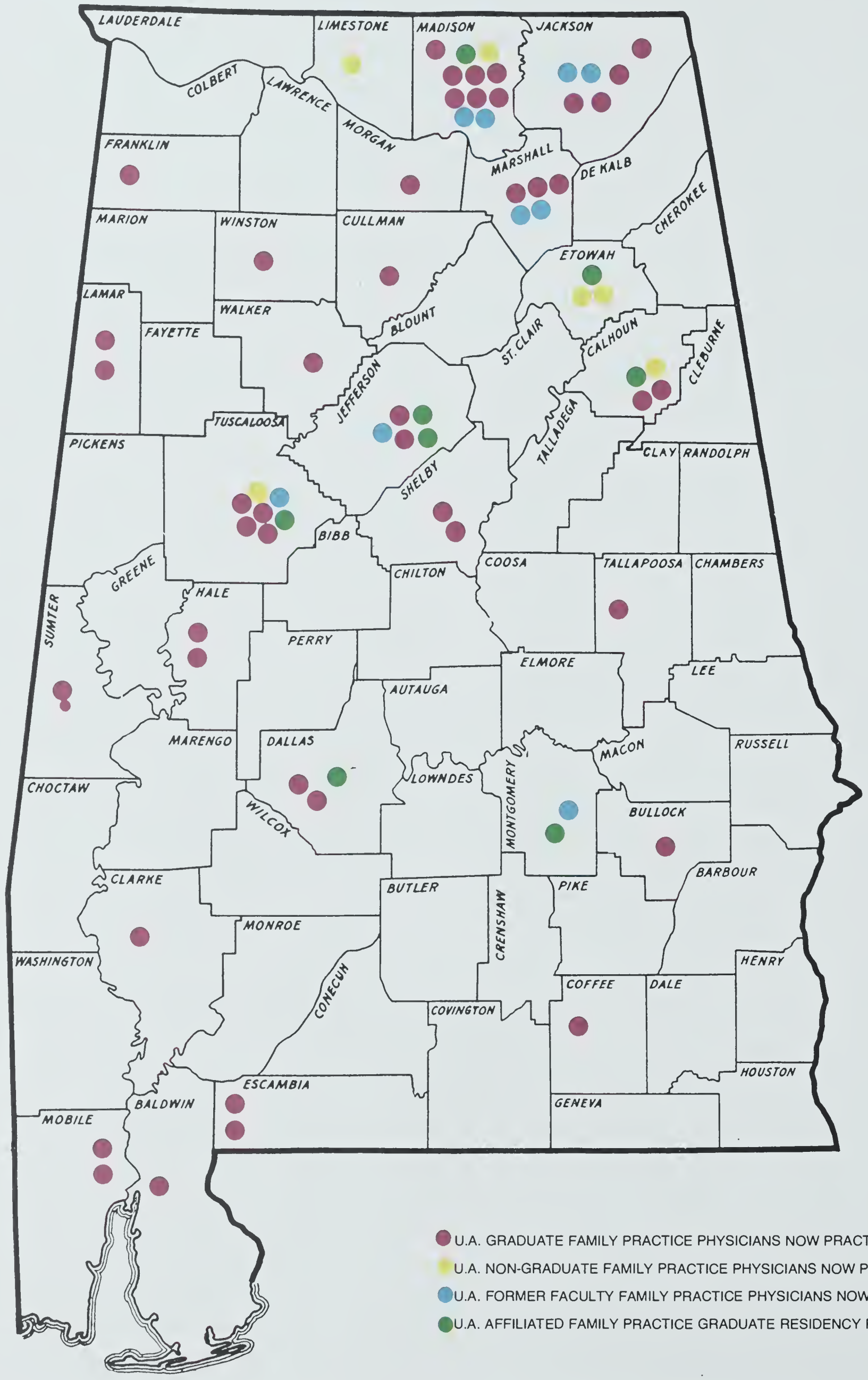
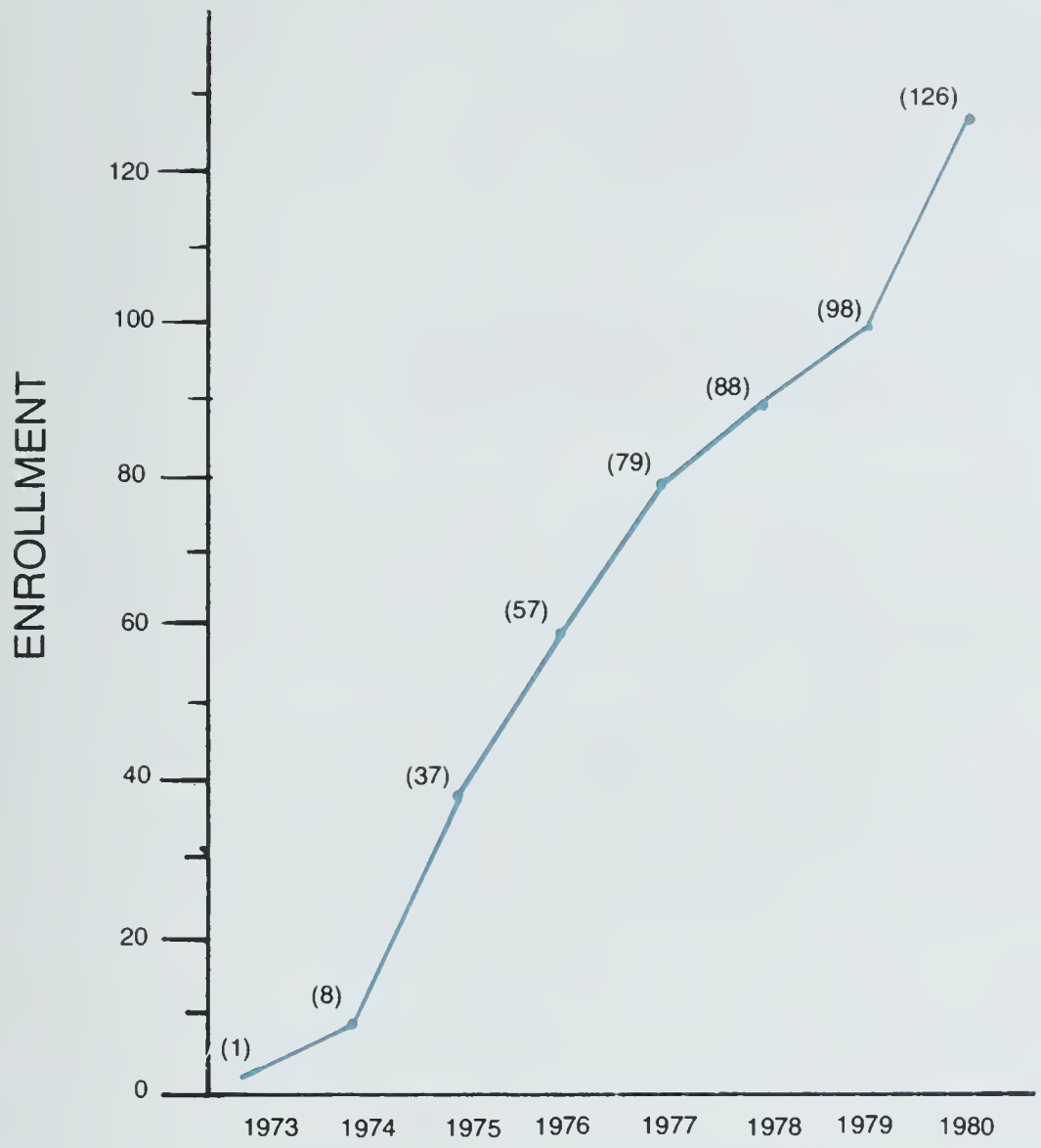


Figure 2

Annual Enrollment

1973-1980



and supplies locally. Taken together the programs constitute an economic entity with an annual budget that would be the pride of any community looking for a new industry. This is in addition to the services they provide and to the value of the product they create, family physicians for Alabama.

Conclusion

In a short span of 7 years the State of Alabama has made as much progress as any in solving its physician manpower and specialty and geographic maldistribution problems. Its network of family practice residencies is an important part of that resolution. We now have in place programs adequate to meet the needs of the future if we can bring them all to the state of maturity and excellence that we have a right to expect. This is one statewide program that has worked on behalf of the people of the state and from which the taxpayers have got their money's worth. It would be a great shame and a great loss if, in this time of inflation and cutbacks in state programs, this program were allowed to undergo attrition. No new programs are needed but the ones that exist deserve continued development to achieve maximum effectiveness.

Figure 3

PG-1 Positions

1973-1980

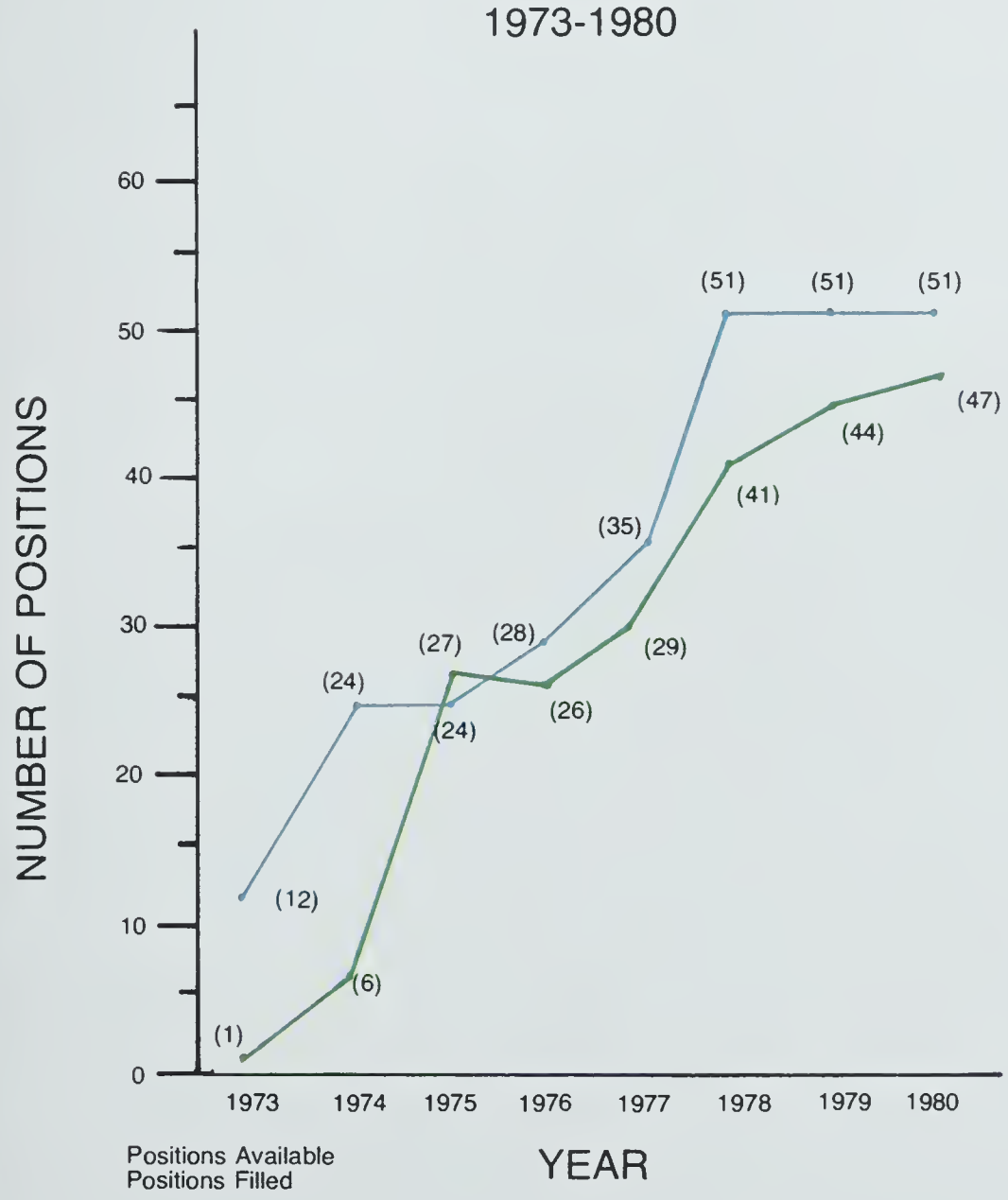
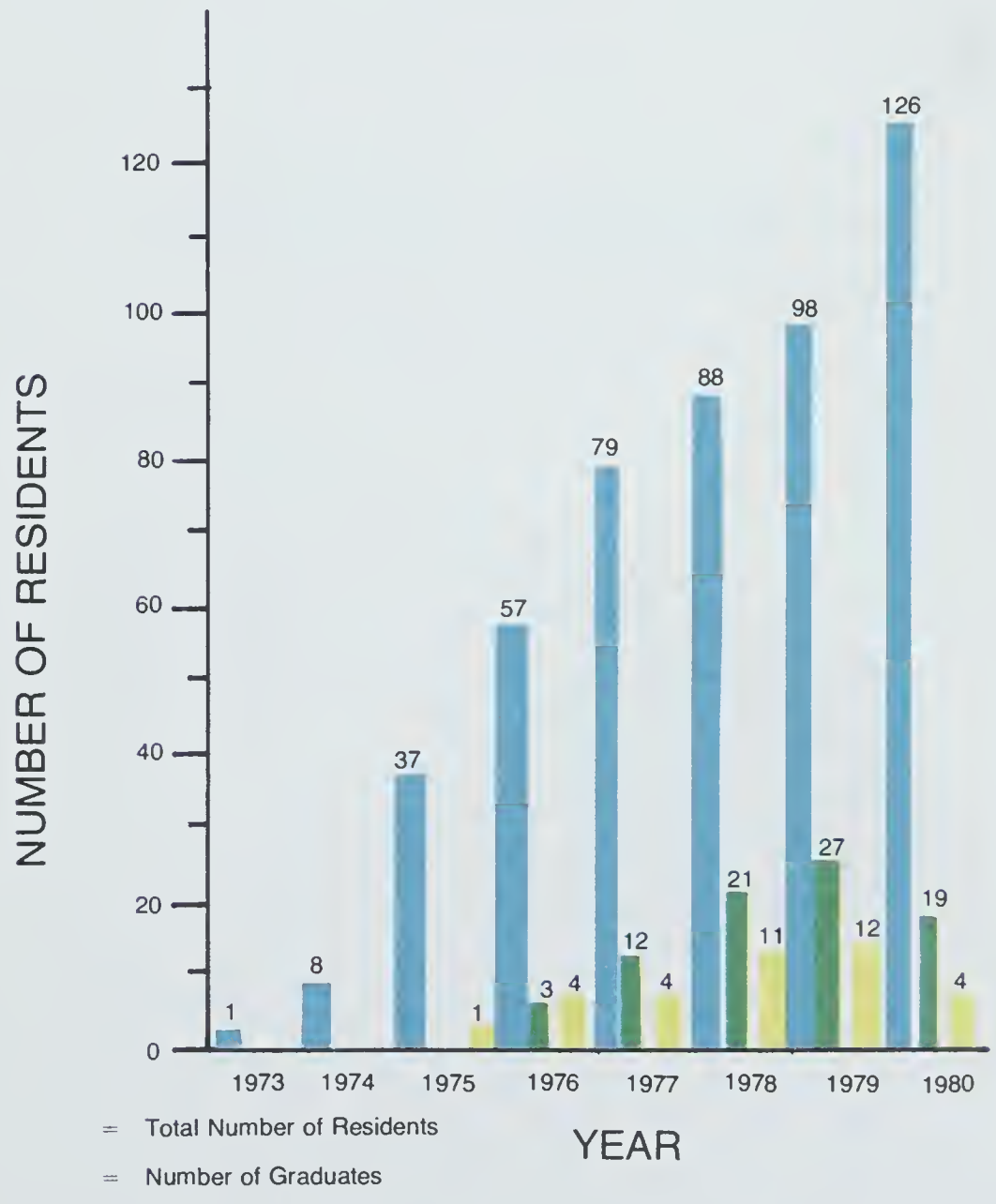


Figure 4

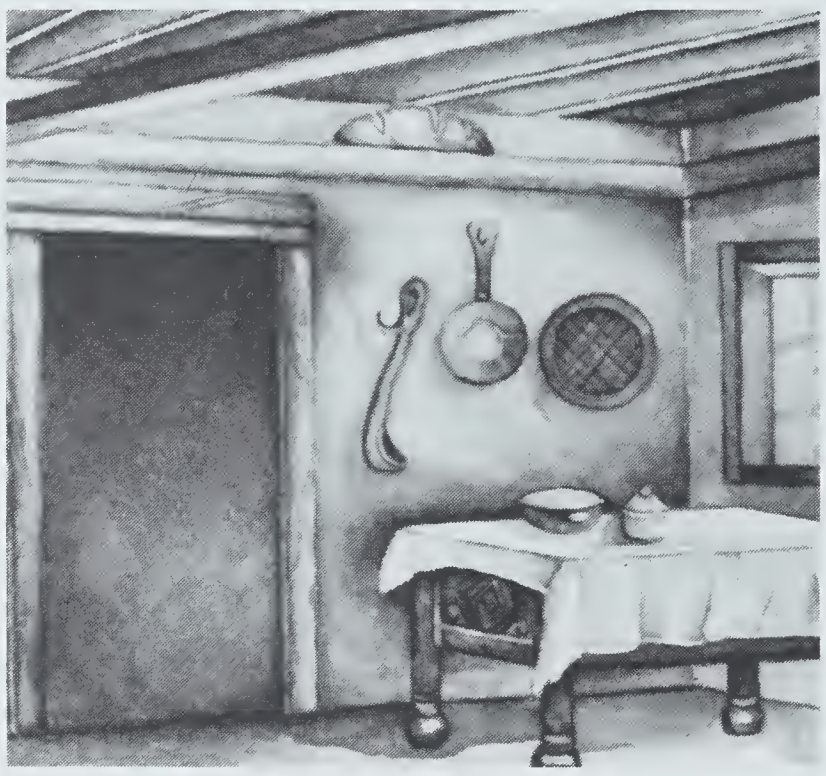
Enrollment, Graduates, and Dropouts

1973-1980



Yesterday's Folk Remedy:

A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]



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In serious, deep-seated staph infections, 500 mg q.i.d. dosage is recommended.†

- Tegopen has been reported active against 96% of *Staphylococcus aureus*.[2]
- 80% of *S aureus* has been reported resistant to amoxicillin and ampicillin.‡[2]
- 88% of *S aureus* has been reported resistant to penicillins G and V.‡[2]
- Staph resistance to erythromycin may develop during a course of therapy.[3]



Available as 500-mg and 250-mg capsules and Oral Solution 125 mg/5 ml.

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Today's Penicillin for Today's Physician

1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on an adjoining page.

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy.

‡Not all isolates may have been tested using both discs.

Tegopen®
(cloxacillin sodium)
Capsules and Oral Solution

Brief Summary of Prescribing Information

For complete information, consult Official Package Circular.

(12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N B: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

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Acute Management of the Multiple Trauma Candidate Requiring Reimplantation
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Toe to Hand Transfers
Cancer and Microsurgery
Geometry of and Planning of Microsurgery Free Flaps
Bracheal Plexus and Peripheral Nerve Microsurgery
Intracraneal Neuromicrosurgery
Urologic Microsurgery, Including Reconstructive, Replantation and Infertility
Gynecological Microsurgery Reconstruction and Infertility
Chest Wall Reconstruction with Microsurgery
Microsurgery and Trauma
Orthopedic Applications of Microsurgery
Microsurgery

Program:

The course consists of two seminars:

Seminar I A lab and alecture series, Wednesday, February 25 through Monday, March 2.
19 hours lecture and 21 hours lab, which includes basic techniques with personalized instruction from visiting faculty using Applied Fiberoptics binocular microscopes.

Seminar II A lecture and video series, Friday, February 27 through Monday, March 2.
19 hours lecture and simultaneous video sessions to coincide with the labs.

Accreditation:

As an organization accredited for continuing medical education, Louisiana State University School of Medicine, New Orleans, designates this continuing medical education activity as meeting the criteria for forty credit hours in Category I of the Physician's Recognition Award of the American Medical Association.

Registration:

Tuesday, February 24, 1:00—4:00 PM
Daily from 7:00 AM
A registration fee of $600.00 for Seminar I, or $300.00 for Seminar II should accompany the registration form.
There is a $50.00 cancellation fee for withdrawals after February 11, 1981. All refunds must be requested in writing and postmarked no later than February 20, 1981. ***Residents half fee.***

Inquiries:

Multidisciplinary Microsurgery at the
Mardi Gras
Southern Baptist Hospital
2700 Napoleon Avenue
New Orleans, Louisiana
(504) 899-9311



Mrs. O. B. Carr, Jr.
President, A–MASA



Doctor, We Need Your Body!

Now that I have your full attention, you will want to know that we do need you to encourage your spouse to join A-MASA. I know you are a member of MASA, but is your spouse a member of A-MASA?

As physicians' spouses, we are concerned about the welfare of medicine, and we need your help to tell the "health care story" as it really is to your spouse. The Auxiliary To The Medical Association of the State of Alabama is in partnership with medicine to:

- Assist the Medical Association of the State of Alabama
- Advance the cause of preventive medicine
- Secure adequate medical legislation
- Promote good fellowship among physician's families

A-MASA is a unique organization in Alabama made up of over 1,850 physicians' spouses! Chief among our benefits is the joy of giving worthwhile service to the communities in which we live, educating people to take care of their health, nurturing good attitudes about the medical profession, and extending the abilities of our spouses to provide good health care. Today, more than ever before, we need to have great faith in the Auxiliary, its purposes, goals and expectations.

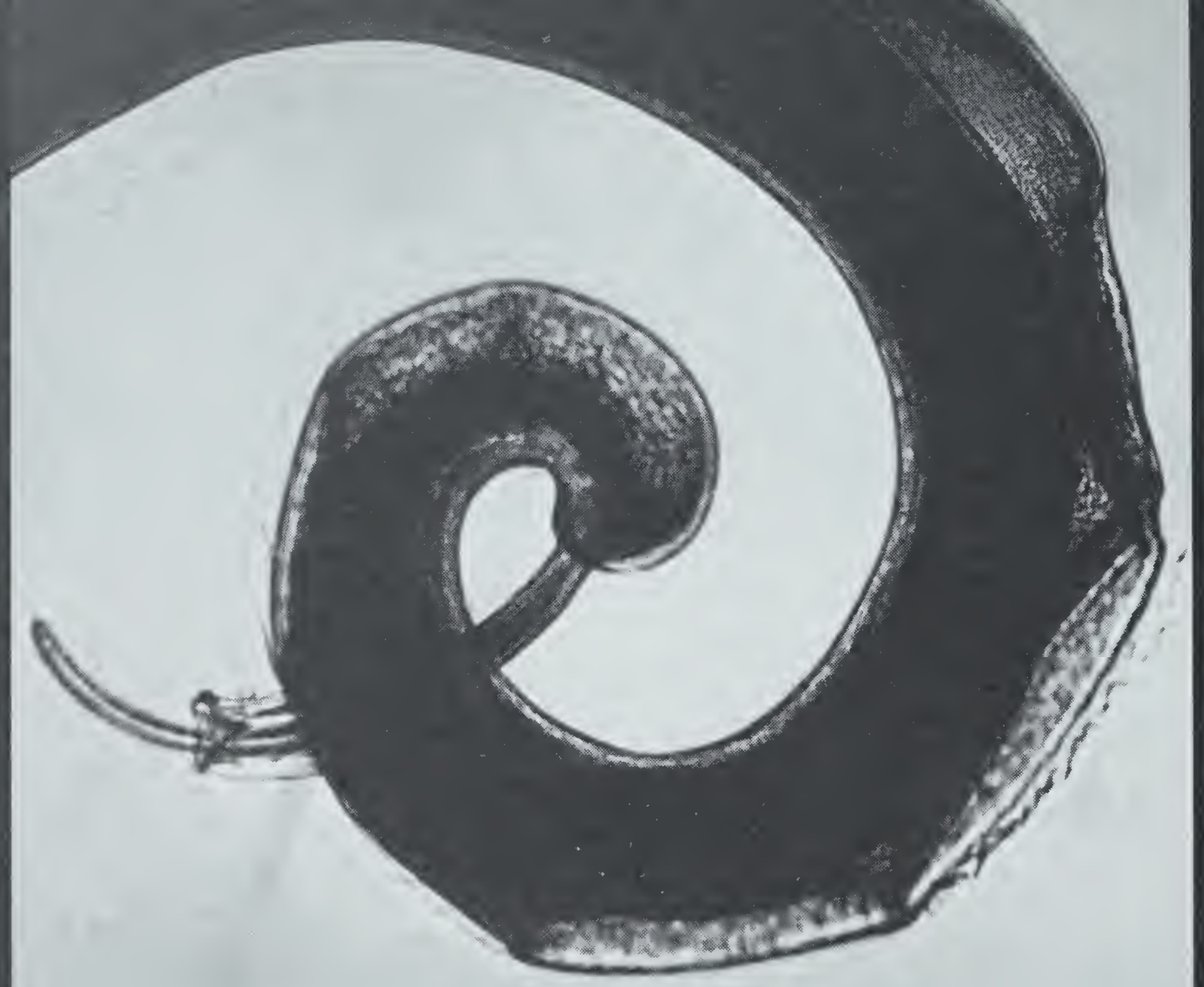
Interested, active people are the lifeblood of a growing, active organization like ours. Recently the **A-MASA News** reported a few of the 1980-1981 activities of the members of the Montgomery-Autauga Medical Auxiliary. The Auxiliary's Fourteenth Annual Antique Show and Sale is now history. The profits are approximately $10,000 and will be given to the Country Day School, which offers an individualized instructional program for children with disabilities. The funds will be used to develop a physical education program. A recognition award and a nursing scholarship are being established by the Medical Auxiliary at the School of Nursing at Auburn University in Montgomery.

A cash award will recognize a graduating senior who has demonstrated the greatest dedication to the art of nursing. The initial presentation will be made at the spring graduation, 1981, and annually thereafter. The Nursing Scholarship will be instituted in 1981-82. Auxiliary members will begin work in January on "Health Kits" to be given to 40 five-year-old students at the Creek Nation School on the Indian Reservation in Poarch, Alabama. Members will make the kits and hand towels and donate combs, toothbrushes, toothpaste and soap. These will be demonstrated at the school, then taken home by the students.

Russell County Auxiliary in the Southeast District is a new county organized first last year, and is already involved in many community health projects. Among these are hearing and vision screening for school children; a loan program of infant safety seats for new mothers; working with physicians, hospitals, and the American Cancer Society to provide new wigs for patients who have received chemotherapy or radiation therapy. Promoting fellowship among the physicians' families and working with community organizations to promote good-will in the name of organized medicine top their list.

Continued on page 49

President-elect, Mrs. Rufus Lee; First Vice-President, Mrs. Robert Estock; District Vice-Presidents: NW, Mrs. Robert Rhyne; NE, Mrs. Andrew Brown; SW, Mrs. John Taylor; SE, Mrs. William Lazenby; Recording Secretary, Mrs. Ralph Braund; Treasurer, Mrs. Lamar Thomas.



Tail of whipworm
(Trichuris trichiura)

Vermox®: the only anthelmintic highly effective against whipworm.

	Cure Rate	Egg Reduction
VERMOX®	68%*	93%**
Mintezol[1]	35%†	45%††
Antiminth[2]	Not Indicated	
Povan[3]	Not Indicated	

Also highly effective against roundworm and hookworm

Since whipworm, roundworm and hookworm are all soil-borne helminths, mixed infections are not uncommon. Only one anthelmintic exhibits high efficacy rates for all three nematodes: whipworm—68%; roundworm—98%; hookworm—96%. That agent is VERMOX®.

Please see following page for Summary of Prescribing Information.

Broad-spectrum coverage in mixed helminthic infections

Vermox® TABLETS
(mebendazole)

JANSSEN PHARMACEUTICA INC.
New Brunswick, N.J. 08903

Committed to research...
because so much remains to be done.

© Janssen Pharmaceutica Inc. 1980

JPI-023



Broad-spectrum coverage in mixed helminthic infections

TABLETS
Vermox®
(mebendazole)

Contraindications VERMOX is contraindicated in pregnant women (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

Precautions PREGNANCY: VERMOX has shown embryotoxic and teratogenic activity in pregnant rats at single oral doses as low as 10 mg/kg. Since VERMOX may have a risk of producing fetal damage if administered during pregnancy, it is contraindicated in pregnant women.

PEDIATRIC USE: The drug has not been extensively studied in children under two years; therefore, in the treatment of children under two years the relative benefit/risk should be considered.

Adverse Reactions Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.

Dosage and Administration The same dosage schedule applies to children and adults. The tablet may be chewed, swallowed or crushed and mixed with food. For the control of pinworm (enterobiasis), a single tablet is administered orally, one time.

For the control of roundworm (ascariasis), whipworm (trichuriasis), and hookworm infection, one tablet of VERMOX is administered, orally, morning and evening, on three consecutive days.

If the patient is not cured three weeks after treatment, a second course of treatment is advised. No special procedures, such as fasting or purging, are required.

* Mean cure rate of VERMOX® in treating whipworm; cure rate range of 61-75%. Data on file at Janssen Pharmaceutica Inc.

** Mean egg reduction of VERMOX® in treating whipworm; egg reduction range of 70-99%. Data on file at Janssen Pharmaceutica Inc.

† Rollo, I.M.: Drugs used in the chemotherapy of helminthiasis, in Goodman, L.S.; and Gilman, A. (eds.): *The Pharmacological Basis of Therapeutics*, ed. 5. New York, Macmillan, 1975, p. 1034.

†† Miller, M.J.; Krupp, I.M.; Little, M.D.; Santos, C.: Mebendazole an effective anthelmintic for trichuriasis and enterobiasis. *JAMA* 230 (10): 1412-1414, Dec. 9, 1974.

1. Registered trademark of Merck Sharp and Dohme.
2. Registered trademark of Roerig.
3. Registered trademark of Parke-Davis.

JANSSEN PHARMACEUTICA INC.
New Brunswick, N.J. 08903

Committed to research...
because so much remains to be done.

Auxiliary—*Continued from page 47*

Does your county have a Medical Auxiliary? Is your spouse a member? If so, both of you already know the many benefits available—especially the rewards in programs which serve the community in which you live. But if not, a real opportunity is going by. We know that one person can make all the difference in whether or not things get done. Just one person. YOU could be the catalyst in your community to help organize a Medical Auxiliary! Please contact our First Vice-President in charge of Membership, Mrs. Robert Estock at 2419 Monte Vista Drive, Birmingham, Al Phone 822-2798. Mrs. Estock and her committee would love to have the opportunity to answer your questions and meet with you and your spouse.

If your county isn't interested at this point in organizing an auxiliary, please encourage your spouse to join us as a Member-at-large. As you can see, we are a unique group and your spouse already has the right credentials to be a member. No matter how broad the program of the Auxiliary, how high its aim, nor how active its various committees, maximum efficiency in service to the medical profession and the public cannot be attained until every eligible physician's spouse in Alabama is an Auxiliary member.

Encourage your spouse to join us. We really can do more together!

Mary

I WISH TO JOIN THE MEDICAL AUXILIARY.

____ PLEASE SEND MY NAME TO MY COUNTY AUXILIARY MEMBERSHIP CHAIRMAN AND BILL ME FOR DUES.

____ THERE'S NO ORGANIZED AUXILIARY IN MY AREA; PLEASE ENROLL ME AS A MEMBER-AT-LARGE (ANNUAL DUES $15, STATE AND NATIONAL.)

NAME _____

ADDRESS _____

CITY _____ ZIP _____

Mail to:
Mrs. Robert Estock
A-MASA First Vice-President
2419 Monte Vista Drive
Birmingham, Alabama 35216

Physicians Placement

The Medical Association of the State of Alabama maintains the Physicians' Placement as a service to the medical profession in the state of Alabama. Opportunities for practice in Alabama will be published and will be distributed to physicians making inquiry. Physicians wishing to establish practice are invited to submit a resume to be kept on file with the Association. For further information write: Mr. Emmett Wyatt, Executive Assistant, MASA, P.O. Box 1900-C, Montgomery, Alabama 36197 or call (205) 263-6441.

LOCATIONS WANTED (Physicians interested in locating in Alabama)

FAMILY PRACTICE: Age 43; University of South Alabama, 1978; seeking practice in a small town preferably in a rural area; Available September 1, 1981. LW-110180.

* * *

FAMILY PRACTICE/OBSTETRICS: Age 27; Harvard, 1978; seeking practice in solo in a town with a population less than 25,000. Available July 1981. LW-110280.

* * *

FAMILY PRACTICE: Age 32; Meharry, 1976; American Board Eligible; seeking practice in assistant or associate, institutional preferably in the Montgomery, Mobile or Birmingham areas with a population of 200,000 or more. LW-090180.

* * *

FAMILY PRACTICE: Indiana University, 1978; seeking practice in multi-specialty group, single specialty group or partnership. Available July 1981. LW-40262.

* * *

FAMILY PRACTICE: Case Western Reserve, 1967; National Board Certified; seeking practice in school health, industrial or institutionally based. LW-40280.

* * *

FAMILY PRACTICE: University of Mississippi, 1978; seeking practice in single specialty group, partnership or multi-specialty group. Available September 1981. LW-40355.

* * *

FAMILY PRACTICE: University of Alabama, 1978; National Board Certified; seeking practice in single specialty group, partnership or multi-specialty group. Available July 1981. LW-40315.

* * *

INTERNAL MEDICINE: Age 31; North Carolina, 1976, American Board Certified in Internal Medicine in 1980; seeking practice in general, including outpatient, in-patient and emergency room care preferably in a moderate to large city, southeastern area. Available in spring of 1981. LW-030380.

* * *

INTERNAL MEDICINE: Age 35; University of Texas, 1978; American Board Eligible for Internal Medicine in 1981; seeking practice with a small group, particularly interested in the Huntsville, Birmingham and Montgomery areas. Available July 1981. LW-080180.

* * *

NEPHROLOGY: Age 32; University of Texas, 1973; American Board Certified, seeking practice in a town with a population of 25,000 or more. Available January 1981. LW-120180.

* * *

OBSTETRICS AND GYNECOLOGY: University of North Carolina, 1974; seeking practice in solo, partnership of single specialty group. Available August 1981. LW-40112.

PATHOLOGY: Age 37; Meharry, 1974; seeking practice in assistant or associate, institutional or group. Available July 1981. LW-110579. (See LW-110679).

* * *

PATHOLOGY: Age 31; University of Michigan, 1976, American Board Certified; seeking practice in assistant or associate or institutional in a town with a population of 50,000 or more. Available July 1981. LW-120280.

* * *

PEDIATRICS/FAMILY PRACTICE: Age 42; University of Bombay, 1967, American Board Certified, seeking practice in associate, private or partnership preferably around the Birmingham or Shelby County areas. Available July 1981. LW-120380.

* * *

PRIMARY CARE: Baylor College of Medicine, 1977; seeking location in areas which do not now have a physician or areas which will soon be without a physician. Available 1981. LW-080480.

* * *

PEDIATRICIAN/GENERAL PRACTICE: Age 31; University of Arizona, 1975; American Board Eligible; seeking practice in institutional or group preferably in the southern area near Mobile. Available July 1981. LW-110679. (See LW-110579).

PHYSICIANS WANTED (Opportunities for Practice)

DIAGNOSTIC RADIOLOGIST: Opportunity for Diagnostic Radiologist. Must be able to do Nuclear Medicine, Angio, and C.T. Scanning. Immediate opening available. PW-110180.

* * *

EMERGENCY MEDICINE: Emergency group seeking full time physician to join established group. Malpractice insurance paid, fee-for-service compensation with guarantee. PW-110280.

* * *

EMERGENCY MEDICINE: Town of 10,000 needs physician to cover Emergency Room of Small general hospital. Weekend coverage already available. Coverage needed for approximately 9 hours a day, 5 days a week (Monday through Friday) salary negotiable. PW-090380.

* * *

FAMILY OR GENERAL PRACTITIONER: To associate with established general practitioner. Unusual opportunity to grow in a well equipped building located in the Birmingham area. No OB's. Scheduled hours with time for vacation, leisure and city convenience. PW-090280.

* * *

FAMILY PRACTICE: Unusual opportunity to take over a practice in a community of 1,600, trade area of 8,200 in a county of 32,000 residents in north Alabama. Hospital located nearby. Second largest town in the county. Tremendous potential for growth. OB optional. Four churches, two schools. Leisure activities include water sports, fishing, camping and golf course. PW-080880.

* * *

FAMILY PRACTITIONER: Opportunity to practice in a community of 1,500, trade area 5,000. Principal source of income for community is Industry and Oil. Membership on the hospital staff is open. Country clubs and golf courses nearby. Nearest large city with population of 100,000 is 40 miles away. PW-080980.

* * *

NEARLY IDEAL SETUP FOR TWO FAMILY PRACTITIONERS: Fully equipped office available. Excellent building, ample parking, Fifty-year doctor retiring. Prosperous town, junior college and excellent schools. Recreation facilities unexcelled. Accredited hospital. Must be fully investigated to be appreciated. PW-060180.

* * *

FAMILY PRACTITIONER: Existing multi-specialty clinic seeks physicians for new satellite clinic in Butler, Alabama. First year guaranteed salary with excellent benefits. Partnership opportunity. PW-050180.

* * *

FAMILY PRACTITIONER: Would like Christian M.D. to cover established practice for an intermediate-length term in the Birmingham area. Nice opportunity for a change. PW-090480.

* * *

FAMILY PHYSICIAN: Board-Certified, F. P. Residency-trained Family Physician wants same to associate with him in 1981. Prime site in growing residential area of Mobile. Expectations for future expansion to 3-4 person F. P. group. PW-120180.

* * *

FAMILY PRACTICE: Physician interested in Primary Care practice in group setting wanted for 4 physician clinic in Northeast Alabama. AAFP Board Certified or eligible desired. Within 1-2 hours drive from Atlanta, Georgia and Birmingham, Alabama near Cheaha Mountain and several lakes. Salary and excellent benefits to qualified person. PW-120280.

* * *

PEDIATRICIAN: An associate is needed to join an established, extensive Pediatric practice—(general pediatrics, pediatric allergy and consulting and hospital peds.). Outstanding geographic, economic, cultural and professional opportunity. Minimal night and week end work due to cooperative arrangements with other pediatricians and emergency physicians. Initial salary negotiable with early partnership participation. PW-081080.

* * *

PEDIATRICS: A 36 yr. old pediatrician with four year old solo practice in Saraland, Alabama. Located 15 minutes north of Mobile, Alabama. Desires associate pediatrician. PW-110380.

ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets



Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the Bactrim™ 3-system counterattack



ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

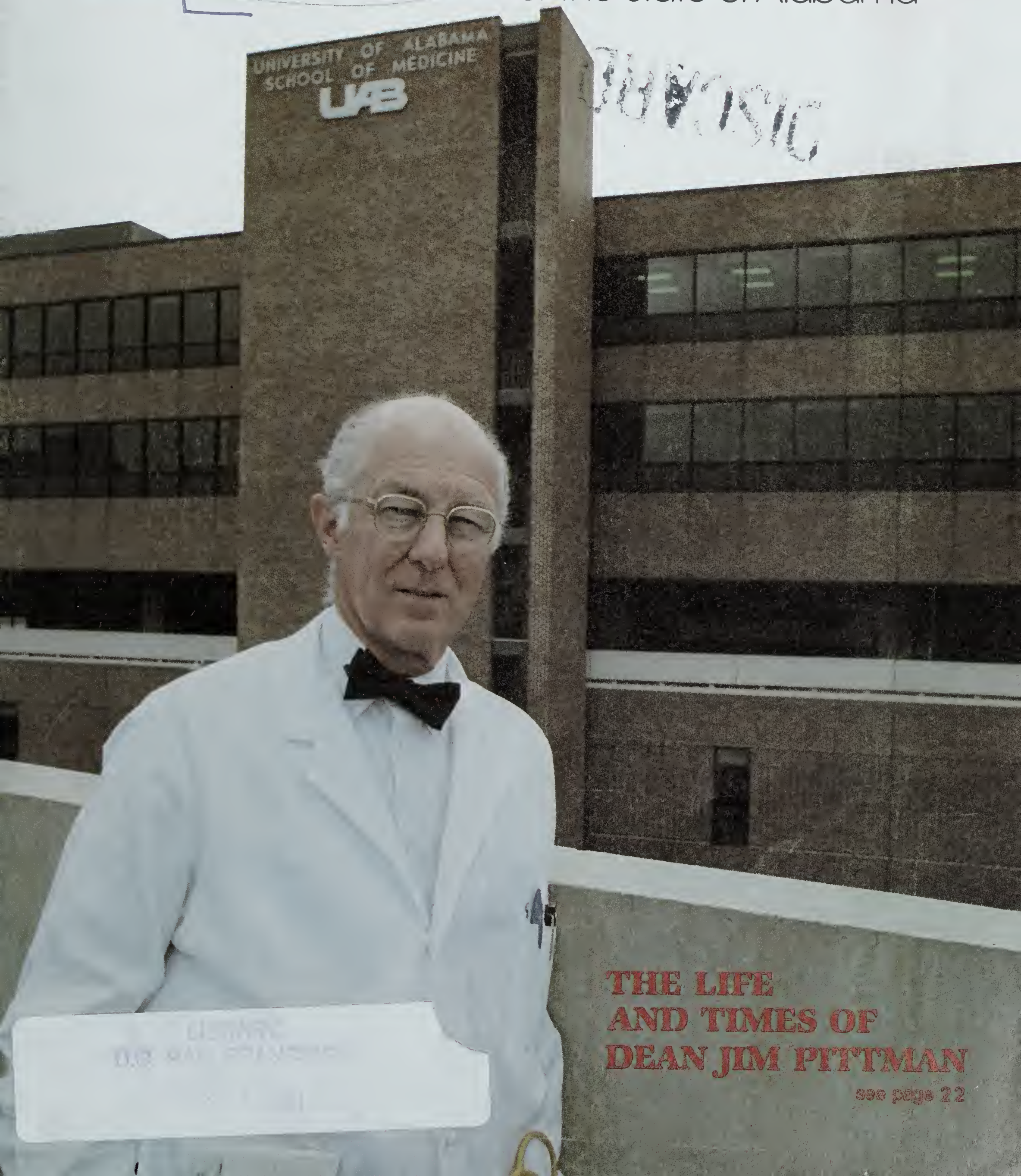
Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

JOURNAL
of the Medical Association of the State of Alabama

VOL. 50, NO. 8, FEBRUARY, 1981

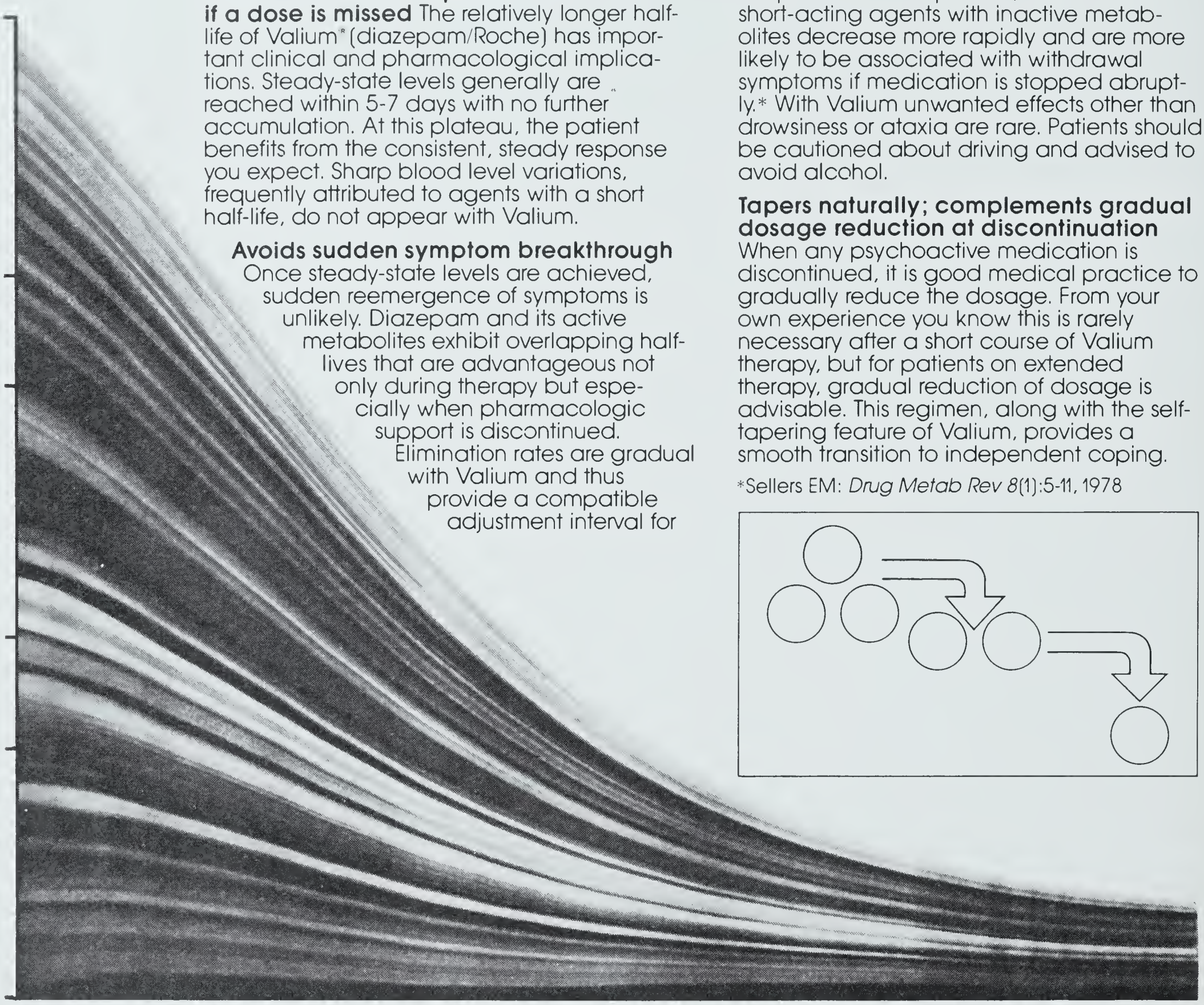


THE LIFE AND TIMES OF DEAN JIM PITTMAN

see page 22

half-life

Just one built-in advantage



Ensures smooth therapeutic effect even if a dose is missed The relatively longer half-life of Valium® (diazepam/Roche) has important clinical and pharmacological implications. Steady-state levels generally are reached within 5-7 days with no further accumulation. At this plateau, the patient benefits from the consistent, steady response you expect. Sharp blood level variations, frequently attributed to agents with a short half-life, do not appear with Valium.

Avoids sudden symptom breakthrough Once steady-state levels are achieved, sudden reemergence of symptoms is unlikely. Diazepam and its active metabolites exhibit overlapping half-lives that are advantageous not only during therapy but especially when pharmacologic support is discontinued. Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for the patient. In comparison, blood levels of short-acting agents with inactive metabolites decrease more rapidly and are more likely to be associated with withdrawal symptoms if medication is stopped abruptly.* With Valium unwanted effects other than drowsiness or ataxia are rare. Patients should be cautioned about driving and advised to avoid alcohol.

Tapers naturally; complements gradual dosage reduction at discontinuation When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978

in the management of symptoms of anxiety

Valium®(IV)

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

effective therapy through efficient pharmacodynamics

Before prescribing, please see summary of product information on next page.

ROCHE®

Valium®(IV)
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy
Warnings: Not of value in psychotic patients Caution against hazardous occupations requiring complete mental alertness When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures Advise against simultaneous ingestion of alcohol and other CNS depressants Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy

ROCHE®
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Information For Authors Concerning Manuscripts

Manuscripts should be typewritten, double spaced on white paper 8½x11 inches with adequate margins. The original copy, not the carbon copy, should be submitted. Authority for approval of all contributions rests with the Editor. *The Journal of The Medical Association of The State of Alabama* reserves the right to edit any material submitted. The publishers accept no responsibility for opinions expressed by contributors.

Style: The first page should list title, the author (or authors), degrees, and any institutional or other credits. Bibliographies must contain, in the order given: Name of author, title of article, name of periodicals with volume, page, month—day of month if weekly—and year. Number should be limited to absolute minimum. References should be numbered consecutively in order in which they appear in the text.

The *Stylebook/Editorial Manual,* published by the AMA, is the general reference for questions of style. It is particularly useful in the proper presentation of data. Available at cost ($6.50) from MASA. When conflicts occur between usage, etc., by an author and the stylebook, these will be resolved in favor of the author if his method is persuasive and logical.

Helpful to many writers is *The Elements of Style* by William Strunk Jr. and E. B. White, which emphasizes brevity, vigor and clarity. Available at cost ($1.65) from MASA.

Final authority on grammar is Webster's *New International,* Unabridged, Second Edition.

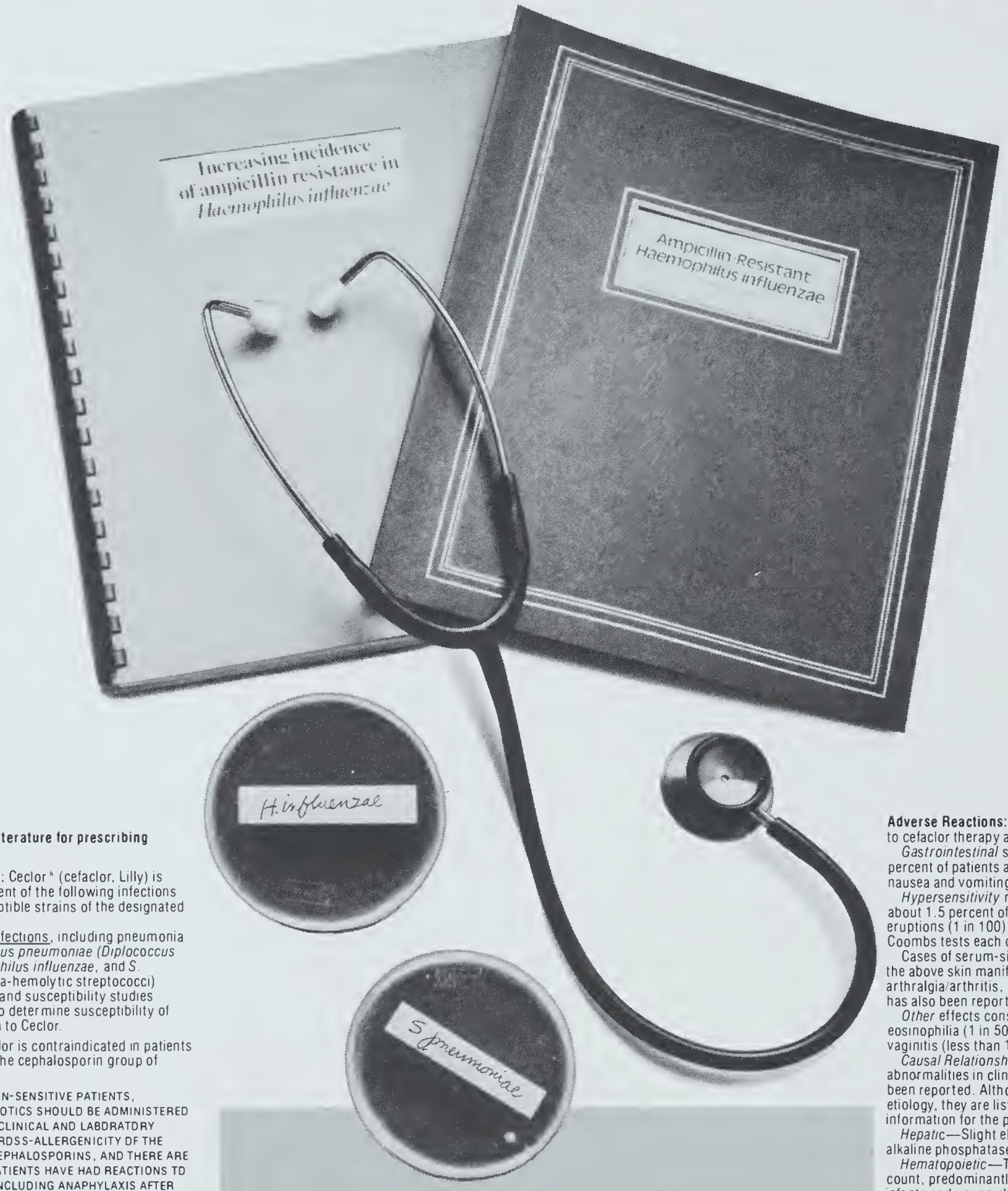
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Length of Articles: Articles should not exceed 3,000 words (approximately 3-4 printed pages). Under exceptional circumstances only will articles of more than 4,000 words be published.

Illustrations: Illustrations should be numbered consecutively and indicated in the text. The number, indication of the top, and the author's name should be attached to the back of each illustration. Legend should be typed, numbered, and attached to each illustration. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. For half tones, glossy photographs should be submitted.

Reprints: Reprint orders should be returned at once. Prices for reprints, based on number of pages, will be furnished upon request. Communications should be addressed to *The Journal of The Medical Association of The State of Alabama,* P.O. Box 1900-C, Montgomery, Alabama 36104. Telephone 263-6441, Area Code 205.

An added complication... in the treatment of bacterial bronchitis*



Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABDRATDRY EVIDENCE DF PARTIAL CRDSS-ALLERGENICITY DF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TD BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor
Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [103080R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., *8*:91, 1975.
2. Antimicrob. Agents Chemother., *11*:470, 1977.
3. Antimicrob. Agents Chemother., *13*:584, 1978.
4. Antimicrob. Agents Chemother., *12*:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II: 880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., *13*:861, 1978.
7. Data on file, Eli Lilly and Company
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

Lilly

Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

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A New Epidemic is Killing Our Children



HOW BUSINESS GETS BEFORE THE ANNUAL SESSION

I have been asked by several physicians to explain how business gets before the Annual Session. A brief explanation follows:

There are two different types of business to come before the Association—ordinary business and matters involving the Constitution and Bylaws.

Resolutions to amend the Constitution and Bylaws can be submitted only by a county society or the Board of Censors. These must be in the hands of the Secretary 90 days prior to the Annual Session. The Secretary is instructed to circularize these to all component society presidents, secretary-treasurers, and members of the College of Counsellors and House of Delegates at least 60 days prior to the Annual Session.

Reports of officers and committees and all proposed resolutions, and any other business requiring consideration by the legislative body shall be submitted to the Secretary-Treasurer not later than February 1 of each year. The Secretary-Treasurer shall distribute any such report, resolution or other business so submitted to all members of the Legislative Body no later than 30 days prior to the date of Annual Session.

Once the resolution has been received, it is published in the Handbook and is mailed to Presidents and Secretaries of the County Societies, to the members of the College of Counsellors and House of Delegates and to members of the Reference Committees.

Each Reference Committee is assigned a certain number of reports and resolutions. These may be discussed by any member of the Association when the Reference Committees hearings takes place. At the Annual Session, the members of the Reference Committees will not enter into the discussion, but will try to get all sides of the issues, and arrive at a consensus. The Committees then write their reports.

The report is reviewed by the Board of Censors. At the Annual Business Meeting on Saturday morning, the chairman of each Reference Committee will submit the report of his Reference Committee, and its recommendations concerning each item of business.

The Board of Censors will make a comment on the recommendation; it will then be open for discussion. Discussion is limited to Delegates, Counsellors and general officers who wear the registration badge denoting their position.

Discussion is not permitted by anyone else. In order for any other person to get privilege of the floor, a Delegate, Counsellor or Officer must address the Chair and ask for the privilege for the particular individual, stating the purpose.

Then the Chair will say that, if there is no objection, the privilege of the floor will be granted to so and so. The Chair may also limit the time. Having heard no objection, the Chair asks for a discussion and then he asks for a vote. A two-thirds vote will grant permission of the floor to the person who would otherwise not have it.

It is the obligation of the Chair, following parliamentary procedure, to insure that the subject to be discussed by the individual is germane. The speaker cannot stray from the subject and introduce extraneous material. The Chair should also fix a time limit, which may be extended by the Chair without objections.

If there is objection, another vote must be taken on the time extension.

For discussion of Caucuses and how they fit into the business of the Annual Session, see Dr. Lightcap's column.

Lon

S. Lon Conner



For faster payment on Blue Shield and Medicare Part B claims, take this ad back to the office.

Now there's a way to get your Blue Shield and Medicare Part B claims processed and paid a lot quicker. Often in less than half the time it used to take.

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For more information on Procedure Code Billing, ask your Professional Relations Representative or call our Birmingham office at 988-2533.

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Tri-State Geriatric Seminar

Mobile, Alabama, March 27, 1981
Management of Day to Day Problems of Aging

Under the joint sponsorship of Ochsner Clinic, Tulane School of Medicine, Louisiana State University School of Medicine, the University of Mississippi College of Medicine, and the University of South Alabama College of Medicine.

Before the year 2000 there will be a doubling and possibly redoubling of the number of elderly Americans. Too often there is little recognition by attending physicians that the presentation of illness and therapy differ greatly in the older patient.

Seminar speakers have developed expertise in the clinical problems associated with the elderly. Experts from Southern medical schools and from outside the region will lead discussions in their areas of expertise.

The Geriatric Seminar will be held at the University of South Alabama Brookley Center, located on renowned Mobile Bay. The Center is ideally located only minutes away from downtown Mobile and easily accessible to major highways and the Municipal Airport. Airport facility for private planes adjacent to the Center. Accommodations, suites in two lodges at conference site. Golf, bowling, swimming, jogging, tennis, etc.

A dinner the night before the daylong seminar will open the program, with all registrants and lecturers in attendance.

Registration: $95.

CME: Eight credits toward the Physician's Recognition Award.

Contact: University of South Alabama College of Medicine, Office of Continuing Medical Education, 2451 Fillingim St., Mobile, AL 36617. Phone (205) 476-3752.

PRESIDENT'S PAGE



C. A. Lightcap, M. D.
President

WHAT'S A CAUCUS?

It has come to my attention that some members are confused about what a Caucus is.

Some seem to think that it has some kind of legislative or quasi-legislative powers in the Association. It does not. The Actions of a Caucus are not binding. Only the final actions taken by the College of Counsellors and the House of Delegates are binding.

What, then, is a Caucus? If their actions are not binding, why have them? Each Congressional District Censor is responsible for conducting a Caucus at least 60 days prior to the Annual Session. A Caucus is a mechanism by which matters that are to be placed before the Association in Annual Session are discussed, where sentiment is sought and areas of disagreement or agreement are given preliminary airing.

A Caucus gives the individual members the opportunity to meet with a member of the Board of Censors, the MASA staff and other physicians to discuss the reasoning behind the proposed resolutions.

This information can be relayed back to the county societies where a possible reassessment of any position can be taken. This enables every person attending the meeting of the College of Counsellors and House of Delegates to have an indepth knowledge of each item to be considered.

Alignment for support of various physicians seeking offices are coordinated at the Caucus meetings. This invariably translates into a more orderly and rapid disposition of business at the Saturday morning Business Session.

C.A. Lightcap, MD



ALCOHOLISM. DEPRESSION. STRESS. DRUG ABUSE. IS THERE A WAY OUT? ASK THREE ALABAMA HOSPITALS.

Three private psychiatric hospitals in Alabama offer individualized, intensive treatment for emotional disorders.

Owned and operated by Charter Medical Corporation, each facility meets the unique needs of the emotionally ill patient through treatment programs for psychiatric disorders and addictive diseases.

Under the direction of staff psychiatrists, a full range of diagnostic, therapeutic and laboratory treatments are offered, with a support staff of nursing, social service, psychology, special education, occupational and recreational therapy.

THERE ARE ANSWERS. CALL US. WE CARE.

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Retreat Hospital

Adult Program • Adolescent Program
Addictive Disease Program
2205 Beltline Rd., S.W. • P.O. Box 1230
Decatur, Alabama 35602
205 / 350-1450
A facility of Charter Medical Corporation

Charter Woods Hospital

Adult Program • Adolescent Program
Addictive Disease Program
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Dothan, Alabama 36301
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A facility of Charter Medical Corporation

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BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine. Some of our better known products are Lopurin™ , Ru-Tuss® and Ru-Vert® . This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K® • TWIN-K-CI™



For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin – Pramoxine HCl – Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications.
See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.



For Potassium Supplementation Improved Compliance...

TWIN-K®

Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement

- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.
  The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

In Cases with Chloride Deficiency...

TWIN-K-CI™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-CI is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-CI is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.



F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme	½ ounce (15 gm) tubes	NDC 0524-0026-51
F-E-P Creme Plain	½ ounce (15 gm) tubes	NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16

Federal law prohibits dispensing without prescription.

February 1980

TWIN-K®

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz) NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-Cl™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbital and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-Cl is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-Cl may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-Cl be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-Cl is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-Cl taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-Cl are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

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Shreveport, Louisiana 71106

Pioneers in Medicine For the Family

SCIENTIFIC

THE MANAGEMENT OF THE PERFORATED UTERUS IN CONJUNCTION WITH 1ST TRIMESTER ABORTIONS

Howard B. Weitzner, M.D.
Associate Professor
Department of Obstetrics
and Gynecology
College of Community
Health Sciences
The University of Alabama,
Tuscaloosa

A wealth of experience has been obtained in the field of abortion since the advent of the liberalized abortion law in New York in 1970. The occurrence of a uterine perforation is one of the most serious complications in first trimester abortion and creates a difficult decision for the operating physician. Should he immediately explore the patient or can he temporize and observe the patient? The intent of this paper is to delineate various factors involved in this decision and to aid the physician in exercising good clinical judgement.

The most dangerous sequellae to uterine perforation occurring in pregnancy are: hemorrage, damage to adjacent viscera and tissue, failure of the perforation to heal properly, possible adhesion formation, and possible infection.

Those factors affecting the evaluation of these sequellae are: 1) the experience of the operator, 2) the length of gestation, 3) the time of occurrence or discovery of perforation during the abortion, 4) the type of instrument that caused the perforation, 5) whether adjacent organs or extra uterine structures were pulled into the uterus and visualized through the perforation site, 6) the location of the perforation site, 7) the availability of adequate manpower, equipment and support services to monitor a conservative management regime satisfactorily.

The two extreme attitudes prevalent today relative to perforations might be expressed as follows:

Aggressive: Since the extent of damage is hidden to the surgeon, it is wisest for the safety of the patient to explore the abdomen in all cases of perforated uteri to ascertain the degree of injury before the patient's general condition deteriorates.

Conservative: It might be wise to avoid the risk of unnecessary surgery and general anesthesia in many cases and await the occurrence of indications for exploratory surgery. Since the diagnosis of a perforated uterus depends upon direct visualization of the uterus and many **suspected** perforations turn out to be **incomplete** perforations in which the defect has not completely gone through the uterine wall and many overt perforations have minimal damage to the uterus and no injury to adjacent structures and occur without significant blood loss. This approach might increase the benefit risk ratio in favor of the patient. Therefore, do not

Continued on page 15



Tail of whipworm
(Trichuris trichiura)

Vermox®: the only anthelmintic highly effective against whipworm.

	Cure Rate	Egg Reduction
VERMOX®	68%*	93%**
Mintezol[1]	35%†	45%††
Antiminth[2]	Not Indicated	
Povan[3]	Not Indicated	

Also highly effective against roundworm and hookworm

Since whipworm, roundworm and hookworm are all soil-borne helminths, mixed infections are not uncommon. Only one anthelmintic exhibits high efficacy rates for all three nematodes: whipworm—68%; roundworm—98%; hookworm—96%. That agent is VERMOX®.

Please see following page for Summary of Prescribing Information.

Broad-spectrum coverage in mixed helminthic infections

Vermox® TABLETS
(mebendazole)

JANSSEN PHARMACEUTICA INC.
New Brunswick, N.J. 08903

Committed to research...
because so much remains to be done.

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Broad-spectrum coverage in mixed helminthic infections

TABLETS
Vermox®
(mebendazole)

Contraindications VERMOX is contraindicated in pregnant women (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

Precautions PREGNANCY: VERMOX has shown embryotoxic and teratogenic activity in pregnant rats at single oral doses as low as 10 mg/kg. Since VERMOX may have a risk of producing fetal damage if administered during pregnancy, it is contraindicated in pregnant women.

PEDIATRIC USE: The drug has not been extensively studied in children under two years; therefore, in the treatment of children under two years the relative benefit/risk should be considered.

Adverse Reactions Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.

Dosage and Administration The same dosage schedule applies to children and adults. The tablet may be chewed, swallowed or crushed and mixed with food. For the control of pinworm (enterobiasis), a single tablet is administered orally, one time.

For the control of roundworm (ascariasis), whipworm (trichuriasis), and hookworm infection, one tablet of VERMOX is administered, orally, morning and evening, on three consecutive days.

If the patient is not cured three weeks after treatment, a second course of treatment is advised. No special procedures, such as fasting or purging, are required.

* Mean cure rate of VERMOX® in treating whipworm; cure rate range of 61-75%. Data on file at Janssen Pharmaceutica Inc.

** Mean egg reduction of VERMOX® in treating whipworm; egg reduction range of 70-99%. Data on file at Janssen Pharmaceutica Inc.

† Rollo, I.M.: Drugs used in the chemotherapy of helminthiasis, in Goodman, L.S.; and Gilman, A. (eds.): *The Pharmacological Basis of Therapeutics*, ed. 5. New York, Macmillan, 1975, p. 1034.

†† Miller, M.J.; Krupp, I.M.; Little, M.D.; Santos, C.: Mebendazole an effective anthelmintic for trichuriasis and enterobiasis. *JAMA* 230 (10): 1412-1414, Dec. 9, 1974.

1. Registered trademark of Merck Sharp and Dohme.
2. Registered trademark of Roerig.
3. Registered trademark of Parke-Davis.

JANSSEN PHARMACEUTICA INC.
New Brunswick, N.J. 08903

Committed to research...
because so much remains to be done.

Perforated Uterus—*Continued from page 13*

explore the patient unless signs of blood loss, damage to adjacent structures, and other findings make themselves apparent during the observation of the patient.

The Experience Of The Operator

This factor is important both in terms of avoiding the perforation as well as in detecting the perforation as quickly as possible. The occurrence of multiple perforations in one uterus reflects the inability of the physician to recognize the original perforation. A perforation should be suspected as soon as any instrument has been "lost", i.e., advanced beyond the estimated confines of the uterine cavity either sideways as well as longitudinally. A blunt instrument such as a sound, dilator or vacurette with the suction turned off, should then be introduced into the uterine cavity until resistance is met. If no resistance is found, insert the instrument to its fullest and perform a bimanual examination. Confirmation of a perforation is substantiated if either the uterine size is smaller than the extent of passage of the instrument or if the instrument can be appreciated by either the vaginal or abdominal hand to be outside the confines of the uterus.

The Length Of Gestation

The incidence of uterine perforations has been reported to be between 1 in 250 to 1 in a 1000 cases. This is grossly underreported since many conservatively managed cases are never reported. Even if they were, a significant number of them, on direct visualization by endoscopy or laporotomy might turn out to be negative.

In the Madison Avenue Hospital's experience the incidence of suspected perforation was the same in uteri under 10 weeks compared to uteri over 10 weeks size. However, three times as many exploratory laporotomies were performed in perforations above 10 weeks compared to those less than 10 weeks in size. The predominant reason for this was the increased incidence of severe intraabdominal hemorrhage. The severity of intraabdominal hemorrhage is apparently related to length of gestation. The further the pregnancy has advanced the greater the likelihood that larger vessels will be traumatized and not spontaneously retract or seal off.

The Time Of Occurrence

If the perforation occurs before any attempt is made to evacuate the contents of the uterus then the physician can at least be certain that no injury has been done with a sharp instrument. The likelihood of conservative management succeeding in this situation is very high. However, the termination of the pregnancy must still be accomplished at a later date. Eighteen cases of early perforation, six weeks to eight weeks or less, were

brought back for repeat D & C's four weeks after conservative management. Twelve of these were terminated without difficulty, but six required immediate laporotomy due to repeat perforations. As a result of this experience all conservatively managed perforations whose pregnancy remained intact were treated by mid trimester saline instillation. No problems were encountered due to the previous perforation.

If the perforation occurs during the middle of the procedure the physician is now dealing with an **incomplete** abortion in conjunction with a perforated uterus. Here, only a laporotomy with abdominal evacuation of uterine contents can safely complete the abortion. If the operator persists in completing the procedure vaginally he runs the risk of enlarging the perforation site, introducing the products of conception into the extra uterine space and further aggravating any injury caused by the initial trauma.

If the perforation occurs at the end of the procedure the major problem is ascertaining whether the perforation may have occurred beforehand and went unrecognized. In most situations expectant observation may be choosen if the clinical evaluation appears to indicate minimal injury.

The Type Of Instrument Causing The Perforation

If either a sharp curette or a suction tip curette with the suction turned on is introduced beyond the uterine wall the likelihood of serious injury is greater than if a blunt instrument were employed. In this situation it is wiser to visualize the damage immediately by endoscopy or laporotomy as the likelihood of repairing tissue trauma is very great. A delay in diagnosis or surgical treatment can lead to serious and more difficult conditions such as blood loss, shock, and intraabdominal contamination by bowel contents.

Adjacent Organs Or Extrauterine Structures Pulled Into The Uterus Thru The Perforation Site

Anytime an extrauterine structure is brought into the uterus to the attention of the operator an immediate laporotomy must be done to ascertain the extent of damage. Failure to do so immediately can only lead to severe infection, contamination and perhaps fistula formation.

The Location Of The Perforation Site

This factor is important in determining whether endoscopy should be employed. If the perforation site occurs in the lower uterine segment, especially on the lateral wall, then retroperitoneal or broad ligament structures are most likely involved. In this situation laporoscopy could miss the extent of damage as retroperitoneal structures cannot be visualized well with the laporoscope. The best way of visualizing and assessing the extent of injury in lower lateral wall perforations is by laporotomy.

If the perforation site is fundal or corporeal then either laporoscopy or laporotomy may be employed. Most corporeal or fundal perforations have their entrance and exit sites in direct opposition. Therefore, their repair with interrupted sutures is relatively simple. However, often in lateral wall perforations the exit and entrance of the perforation site is askewed so that a myometrial tract or tunnel is created with the endometrial opening usually being much lower down in the uterine cavity than the exit. The repair of this type of perforation is more extensive than the fundal perforation described. Here the perforation tract must be opened in its entirety to evacuate any products of conception that it might contain and a layered closure applied to secure hemostasis and prevent any uterine defects from occurring in the healing phase.

The Availability Of Adequate Manpower, Equipment And Support Service

In order to properly observe the patient on whom an observation period has been ordered, competent nursing personnel, a laboratory with available blood, and an operating room in readiness on short notice should an emergency develop, are necessary.

At first the clinician should monitor vital signs and obtain repeated hematocrits. Later, he should look for extra uterine tenderness, peritoneal irritation, or the formation of an adnexual mass. If any of the above are discovered then a laporotomy and repair of the injury should be performed.

Conclusion

This paper has mentioned several important factors to be considered when deciding how to manage a perforated uterus. Comment has been made on favorable and unfavorable factors in considering a conservative course of observation. Antibiotics should be used only if contamination of the peritoneal cavity due to spillage of bowel contents occurs. Prophylactic antibiotics may be advisable but not automatically employed in the case of urinary tract spillage. Urine may chemically irritate the abdominal cavity and cause fever without sepsis and the clinician may not be able to distinguish between sepsis and noninfectious elevation of temperature. The vast majority of cases should have the abdomen irrigated of free blood, adequate hemostasis, re-peritonealization of viscera and no prophylactic antibiotics unless some intervening medical factor such as rheumatic heart disease, chronic debilitating disease, etc., exists. The physician should individualize his approach so that the best results are obtained for the patient.



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NEOSPORIN® Ointment

(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

works just as well in their homes.

- It's effective therapy for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses.
- It provides broad-spectrum overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep.



- It helps prevent topical infections, and treats those that have already started.
- It contains three antibiotics that are rarely used systemically.
- It is convenient to recommend without a prescription.

NEOSPORIN® Ointment—for the office, for the home.

(polymyxin B-bacitracin-neomycin)

Effective • Economical • Convenient • Recommendable

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

Wellcome / **Burroughs Wellcome Co.**
Research Triangle Park
North Carolina 27709

AN EXCEPTIONALLY FAVORABLE



You can expect rapid relief of a broad range of symptoms

With Limbitrol, patients often improve within a week. Not only is insomnia relieved, but you will often see early relief of agitation, psychic and somatic anxiety, anorexia and feelings of guilt or worthlessness. This early response encourages patients to stay in therapy.

You can minimize phenothiazine drawbacks

When you choose Limbitrol over a phenothiazine-containing product, you minimize the risk of tardive dyskinesia — now associated even with low dose, short-term phenothiazine therapy.[1,2] You also reduce the possibility of other extrapyramidal side effects, which occur in approximately 30% of patients receiving phenothiazines.[3-5] In contrast, the reported incidence of these disturbing reactions with Limbitrol or either of its components alone is rare. (For a complete list of side effects reported with Limbitrol, please consult full disclosure.)

References: 1. Paulson GW: *NY State J Med 79:*193-195, Feb 1979. **2.** Hollister LE: Antipsychotic medications and the treatment of schizophrenia, chap. 9, in *Psychopharmacology from Theory to Practice*, edited by Barchas JD, *et al.* New York, Oxford University Press, 1977, pp.134, 145. **3.** Domino EF: Antipsychotics: phenothiazines, thioxanthenes, butyrophenones, and rauwolfia alkaloids, chap. 25, in *Drill's Pharmacology in Medicine*, ed.4, edited by DiPalma JR. New York, McGraw-Hill Book Company, 1971, p.476. **4.** Sovner R, DiMascio A: Extrapyramidal syndromes and other neurological side effects of psychotropic drugs, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascio A, Killam KF. New York, Raven Press, 1978, p.1021. **5.** Donlon PT, Stenson RL: *Dis Nerv Syst 37:* 629-635, Nov 1976.

ROCHE®

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What
better reason
to choose
Limbitrol
for your
patients with
moderate depression and anxiety?

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)



Efficacy without a phenothiazine

Please see summary of product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

Usage in Pregnancy: **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy.

Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) — bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

ROCHE®

ROCHE PRODUCTS INC.
Manati, Puerto Rico 00701

Your guide to patient management... when you decide medication is needed

How to initiate and maintain therapy

Select dosage strength appropriate for each patient

- ☐ Limbitrol 5-12.5 is recommended to minimize drowsiness and for elderly patients
- ☐ Limbitrol 10-25 may be indicated for patients who tolerate medication without undue side effects

Specify daily dosage based on symptom severity

- ☐ An initial dosage of three tablets is recommended
- ☐ Dosage may be increased to six tablets or decreased to two tablets daily as necessary
- ☐ Once a satisfactory response is obtained, patients should be continued on the smallest dose required to maintain the desired effect

Utilize dosage options to best accommodate individual patient needs

- ☐ T.I.D. or Q.I.D., familiar regimens most suited for patients who tolerate medication without undue drowsiness
- ☐ Two tablets one hour before bedtime and one tablet midday may minimize daytime drowsiness and help relieve a common target symptom — insomnia
- ☐ Entire dosage h.s. to take maximum advantage of the sedative effect

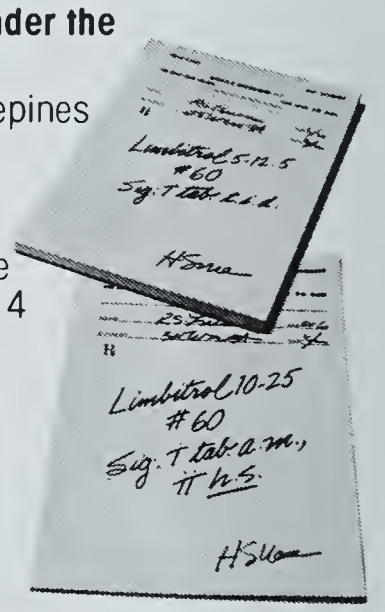
How to make each patient an informed patient

1. Discuss with patients the probability that they will experience drowsiness, especially during the first week.
2. Reassure your patients that drowsiness is one indication that the medication is working and that it may help alleviate their insomnia.
3. Encourage patients to report if drowsiness becomes troublesome so that, if necessary, dosage schedule can be adjusted.
4. Caution patients about the combined effects with alcohol or other CNS depressants. Let them know that the additive effects may produce a harmful level of sedation and CNS depression.
5. Caution patients about activities requiring complete mental alertness, such as operating machinery or driving a car.
6. Warn pregnant patients and patients of childbearing age that the safety of Limbitrol in pregnancy has not yet been established.

Please see complete product disclosure for other pertinent information.

Limbitrol should not be used under the following circumstances:

1. Hypersensitivity to benzodiazepines or tricyclic antidepressants.
2. Concomitantly with an MAO inhibitor. To replace an MAO inhibitor with Limbitrol, discontinue MAO inhibitor for a minimum of 14 days before cautiously initiating Limbitrol therapy.
3. During the acute recovery phase following myocardial infarction.



In moderate depression and anxiety

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THE LIFE AND TIMES OF DEAN JIM PITTMAN, M.D.

by
William H. McDonald

If James A. Pittman, Jr., M.D., had been a more pliable undergraduate student at Davidson College, N.C., he would likely be the Rev. Mr. Pittman today.

Instead, he is Dean of the University of Alabama School of Medicine, still saying what he thinks and often in hot water for that inclination.

Born in 1927 to a devout Presbyterian family in Orlando, Fla., with church obligatory twice on Sunday and once on Wednesday, he grew up wanting to be a preacher. When he went off to Davidson College to complete his seminary prerequisites, he was told that since he would get plenty of religion in seminary, he should take courses that would be "broadening."

With a high school interest in biology, deriving from his interest in birds, he was deep into that line of study when a kindly old Sunday school teacher at Davidson discovered his interest in Darwinian evolution.

"If you believe in evolution," the gentleman warned young Pittman, **"you are going straight to hell!"**

That prospect seemed inappropriate for a man of the cloth and the young collegian began to have doubts: "I'm not going to make it in this school," he thought.

By that time he had become acquainted with a group of students whose parents were missionaries. They had all decided their ministry would be more effective if they studied medicine. Additionally, they were interested in motorcycles and airplanes, as Pittman was, and were otherwise congenial. (After one of their number was killed when his motorcycle hit a cow, Pittman's parents made him get rid of the motorcycle as too dangerous. Obediently, he did that—and bought a World War II Stearman (Yellow Peril) biplane trainer for $275, the same model aircraft he now owns jointly with other faculty members.)

The Choice

These, then, were the elements in the decision Pittman was faced with: On the one hand, he had been told by a venerable gentleman that eternal hellfire awaited him unless, like Galileo, he recanted his scientific beliefs. On the other, he had discovered missionary children who believed that more effective service to mankind lay in medical ministry.

So, Pittman switched, doubled up on chemistry to augment his biology and was graduated from Davidson in 1948 with degrees (**cum laude**) in both Biology and Chemistry.

Harvard Medical followed (M.D. cum laude '52), thence to Massachusetts General for part of his residency; the National Institutes of Health, Oak Ridge, and the University of Alabama for completion of his residency under Tinsley R. Harrison, M.D., chief of service, 1956-58.

If he still had in any doubts about the wisdom of his decision, they were subdued now. Dr. Pittman supplemented his studies in Paris as a visiting scientist under Jean Roche at **Laboratoire de Biochimie Generale et Comparee, College de France.**

Endocrinology and internal medicine under Professor Harrison took him to Nuclear Medicine and the Children's Hospital before leaving in 1971 for the VA central office in Washington, where he served as Assistant Chief Medical Director for Research and Education in Medicine, and a professorship in Medicine at Georgetown University School of Medicine.

He returned in 1973 and has been dean of the medical school and executive dean of the UAB System Medical Education Program since then.

With all this formal education, one might ask Dean Pittman, which element of it was most important in shaping your feel for the art of medicine? He would probably answer all of the above to some; none of the above to others, because one influential period in his training came not in famous and well-staffed teaching institutions but in a place few Alabamians have ever heard of—Twillingate, Newfoundland.

It was there he became a GP, and it was there he learned the value of preceptorships, even though his preceptor was an alcoholic, and all that before he had received his Harvard M.D.

Newfoundland had just joined Canada, and the state had taken over. Harvard had an arrangement with a 150-bed hospital in Twillingate, an island off the Northeast Coast, under which medical students would spend a summer in a preceptorship.

"I never had a better time. It made a GP out of me," Dean Pittman recalls. "I pulled teeth, delivered 40 babies, including one on a boat, did surgery."

The region was very poor, although the countryside was ruggedly beautiful, moving medical student Pittman to keep a detailed diary that reads well today, a mixture of vivid, often lyrical writing and clinical notes.

He had seen an appendectomy from back of a large amphitheater but that was as close as he got until the sodden old doctor deserted him in the midst of an emergency operation on a 17-year-old girl. Dr. O (the inebriate) walked in when his understudy was examining the girl, using standard medical student procedure, and said:

"TB belly."

When Pittman demurred, questioning how the older doctor could know that, his mentor said:

"Okay, let's operate and I'll prove it to you."

They scrubbed in their street clothes. When the old doctor made the skin incision on the patient, who had been administered drip ether, she stopped breathing. He turned the operation over to his apprentice while he resuscitated the patient. Pittman had no earthly idea how to proceed but muddled through to the peritoneum somehow:

"We could see the tubercles," Dean Pittman recalls. His preceptor, feeling his wisdom vindicated, said:

"There. I told you she had TB peritonitis."

With that, he walked out, telling his student surgeon to take out her appendix as long as he was in there.

Pittman scarcely knew where the appendix was, let alone what to do about it.

"The scrub nurse talked me through it," he recalls, still wincing from the experience.

Luminal and Sympathy

Drowning was an everyday occurrence. When people fell in the cold water, with icebergs all around, they usually perished quickly. On one such occasion, when Pittman was called to pronounce a 16-year-old boy dead, the latent preacher in him came out, as evident in this passage from his Twillingate diary:

"Went with Corporal Mercer of RCMP, examined body, and pronounced boy dead. Then went back to home of foster parents, which I would describe if I weren't so sleepy and it so indescribable. Gave several of them 3 grains (one 4-1/2) of luminal, what Marcus Aurelias I could offer (Providence, Fate, etc., etc.) and left. . . ."

He drew a picture of a man at the drowning, whose remarkable features had impressed him, before going to bed in the small hours.

Eye For Detail

The diary is a remarkable document. In it, the soon to be doctor recorded everything with exquisite detail—the height and shape of hills, the details of boats, traps and trolleys. Along with complete notes on his patients. In places, the reader would think that here is a budding novelist setting the scene for some towering evil, as in this:

". . . the island is a mixture of bleakness and wild beauty, stark, empty, sinister, always cold, but free and uncontrolled. Not untouched, however—though there are some stands of virgin timber left, most of the trees have been cut down by the inhabitants to make the things they need to live—houses, boats, traps. . . ."

Some passages may sound patrician today:

"[The people of Twillingate] seem to worry less in proportion to their troubles than the more educated people, and they take the great events of life in a very matter of fact way. (e.g., the way the patient reacted when told his father had died—'sort of expected it, has to happen sometimes, never was too healthy.' Actually, it was not expected.) Or the casual way a man loses his 80-ton schooner in a storm; or the way a man loses his season's work in seal fat; or the way people just happened to be married, be born and die. . ."

His description of bird life is, similarly, the precise observation of a scientist-writer, for when he spots and describes some common terns, Foster terns, loons and petrels, he also notes their environment at the time, with poetic references to "choppy rolling seas and fine misty rain."

He sees similarities between the geography and the inhabitants:

". . . the high rocky cliffs rising straight up out of the sea, the waves breaking white on the rocks at their feet . . . beautiful, strong looking, like people here— the adults at least, since the weak were weeded out by disease in childhood."

Had the biological Darwinism of his undergraduate days become the social Darwinism Dean Pittman might eschew today?

Despite his wariness of his mentor for his drinking habits, young Pittman recorded instance after instance when his preceptor amazed him with his diagnosis or therapy, as:

"Dr. O walked up to the patient, gave the arm a very quick twist, and it was perfectly back in line. (As later x-ray showed. Both radius and ulna had been fractured transversely.)"

He dined well on lobster, seal and cod and was entertained by a family with a collection of Beethoven sonatas, argued philosophy until before dawn, and learned something about the incongruity and ambivalence of human existence, as in—

"Patient came in with aspiration pneumonia and in diabetic acidosis. Listened to one patient singing 'Enjoy Yourself, It's Later Than You Think," while I'm Rxing patient with aspirate pneumonia. (lapse, 20 minutes). Just returned from pronouncing patient dead. Guess I'll hit the sack."

Too much work over too long a time often made young Pittman call himself to task for signs of slipshod performance:

"Make definite Dx & Rxs! Didn't do that last night. Make Dx first and decide on Rx. Must do!"

Is it possible to see in this the emergence of a future dean of medicine?

His histories were marvels of dialogue and patois, as he often recorded presentations in the native style:

"I have a wonderfurl h'ache in me'ead. Been there all evening. Started a fortnight ago I dare say." BP=240/112; age=78. . ."

Like A Native

At times, he mocked his predicament

". . . starry night and what could be more interesting than going to Black Island to see a crazy man on such a night. . ."

Continued on page 27

A CASE OF KAWASAKI'S DISEASE APPEARING AS STAPHYLOCOCCAL SCALDED-SKIN SYNDROME

Submitted by:
Robert B. Thornton, M.D.
Samuel E. Gaskins, M.D.

DEPARTMENT OF FAMILY MEDICINE
COLLEGE OF COMMUNITY HEALTH SCIENCES
UNIVERSITY OF ALABAMA

November 3, 1980

Since 1976 when it was first reported in this country,[1] Kawasaki's Disease (KD) or mucocutaneous lymph node syndrome has fast become a well-recognized disease entity. This apparently new disease, first described by Dr. Tomisku Kawasaki,[2] is diagnosed by clinical findings of fever, adenopathy (usually cervical), conjunctival injection, mucous membrane involvement, rash, and changes in the peripheral extremities.[3] However, because of similarities between KD and many other previously described acute febrile mucocutaneous processes, the differential diagnosis is large. Included in the differential are such diseases as Stevens-Johnson syndrome, scarlet fever, leptospirosis, Rocky Mountain spotted fever, various viral illnesses, and staphylococcal scalded-skin syndrome.[3] The case presented below illustrates some of the difficulties involved in the differential diagnosis of KD.

Continued on page 33

ADDRESS CORRESPONDENCE TO:
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P. O. Box 6291
University of Alabama
University, AL 35486

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Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:
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Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
†depending on severity

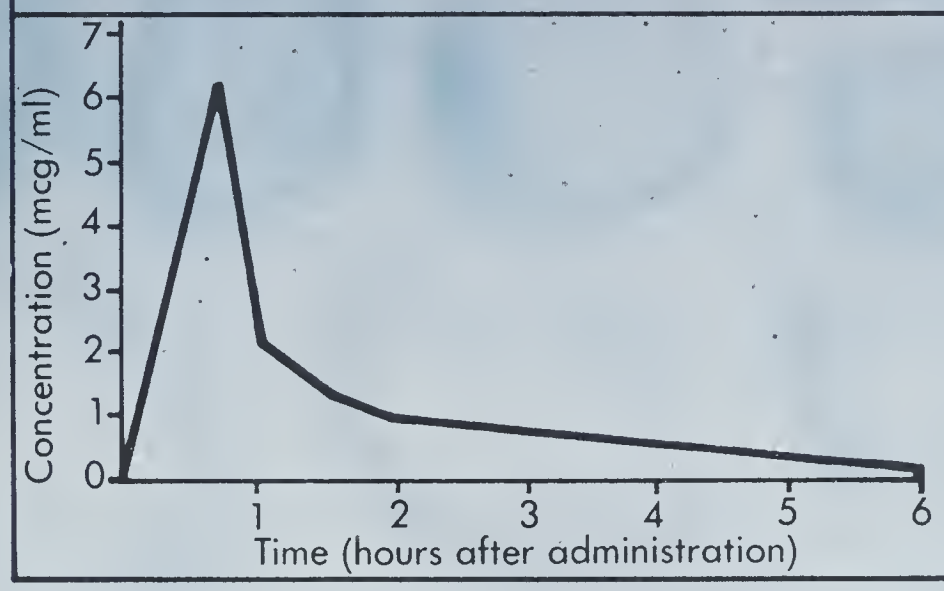
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*Based on T^{a} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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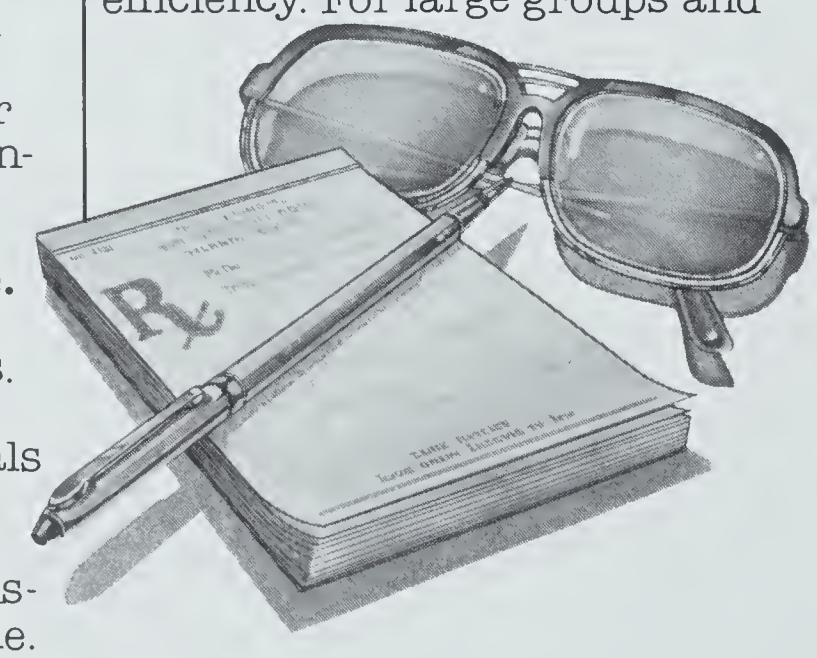
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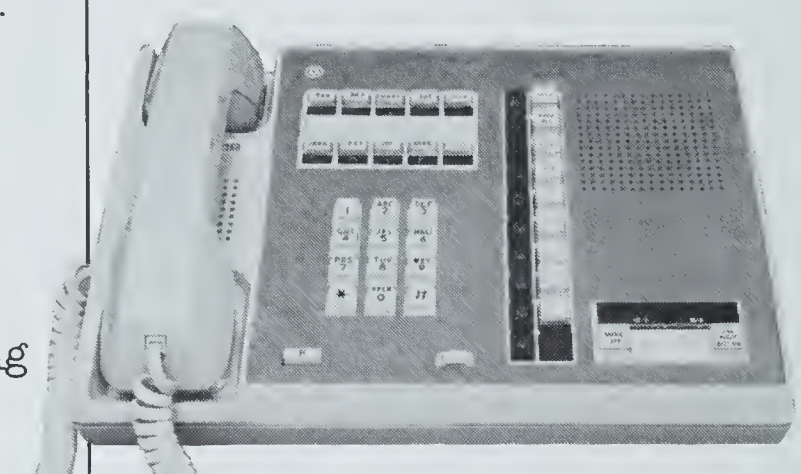
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Soon, young Pittman was not merely quoting his patients in their presentations, but recording in the vernacular as if it were his own:

". . . nobody in his family ever had TB. Why he himself was strong as an ox (pounding his fist against the gunwhale). The only time he had even been sick was a few years back when he had the watery pleurisy and had been all filled up so he couldn't breathe right. Had to be tapped, he did, sure. Oh yes, there was one time before that when he spit some blood, that went away—nothing serious. Everybody spits up a little blood once in a while when he coughs hard. He didn't have to mention that coughing is a sort of racial characteristic of Newfoundlanders. When questioned, he remembered his mother had died of some sort of lung trouble, but nothing really serious. She really died of just plain old age. . . ."

His descriptions of patients are often colored by admiring commentary—

"Very youthful man 72 years old . . . alert little, flat-footed old lady. . . ."

On the way out to board a schooner of 160 tons, there to deliver a baby, he carefully and romantically records "the ripples from the oars shining and sparkling with prosphorescent glow against the black water. . . While in the lamp-lit cabin lay the woman. . . the seasick midwife attending. . ."

From the richness of the diary, it is possible to understand the conviction behind Dean Pittman's belief in preceptorships for wedding the young doctor with the people he will serve.

How better to learn than on the job how to manage such emergencies as the one that occurred when an old fisherman came in with a wart he wanted removed.

Pittman, inexperienced in this, decided on a two-pronged attack—freezing **and** burning. Unfortunately, he tried both at once and the cautery ignited the ethylene dichloride. The old man's hand went up in flames, to be smothered with a pillow.

The fisherman was very impressed with modern medicine. Pittman had told him he was going to burn it off, and burn it off he did. Few patients are that overwhelmed by the miracle of medicine, and Pittman had a year to go before his M.D.

Thrift Begins at Home

But if Dean Pittman's philosophy of the art of medicine was shaped that remarkable summer, his love of the science of medicine probably began much earlier, back in Orlando, although he didn't know it at the time.

His father, born in Winston Salem, had moved to Florida in the land boom year of 1925 to get in the lumber business. He bought the company in '29, the year of the crash. He was always proud of the fact that he had bought out a bankrupt company and paid off 100 cents on the dollar in 1935, the depth of the Depression. The senior Pittman was later to advise his son, on hearing he was buying a house in Birmingham to go with his new deanship: "If you can't pay for it don't buy it. Don't borrow anything."

Young Pittman, who loved to hunt, took a fancy for bird lore, which was fortunate in several respects. This led him to biology, which led him to the friendship of another high school student, Marshall Nirenberg, who was also interested in birds and biology.

Pittman lost track of Nirenberg in the insuing years, knowing only that his high school friend had tried and failed to get into medical school and had returned home to run the family candy business, a converted dairy farm.

Later, Dr. Pittman learned of Nirenberg's advanced degree achievements in biochemistry and attempted to get him placed in the UAB nuclear medicine department where there was a vacant Ph.D slot. But the head of biochemistry, on learning Nirenberg's name, protested that, while he was a religious liberal—"I'm a Baptist and I've got one secretary who's a Presbyterian and one who is Methodist"—he could never get along with those folks, a reference to Nirenberg's jewish name.

He didn't get the job. When Dr. Nirenberg won the Nobel Prize in 1968 for breaking the genetic code, Dean Pittman wired him: "Maybe we can get you an assistant professorship at Alabama now."

Dr. Nirenberg is still at the National Institutes of Health, Washington.



One of Dr. Pittman's proudest symbolic achievements as Dean was the introduction of white coats to housestaff. He may have learned some of the importance of such details from the great Dr. Albert Schweitzer, whom he visited in Africa in the 1950s.

Dr. Pittman was there in 1954-56 and it was because of coming home at night to four square walls that he finally proposed to the stunning Oriental lady he had met at Harvard, when he was in the class of '52 and she in the class of '55—Constance Ming Chung Shen. They were married the year of her graduation. She is now Professor of Medicine Constance S. Pittman, M.D., a gifted endocrinologist and principal author of scientific papers in which Dean Pittman often appears in the supporting cast.

Dean Pittman does not tell **this** story, however, when admiring people ask where in the world he found his lovely wife. Here is his response to that:

"There I was in my P40 over Schechwan (Central China) and a Zero came out of the sun. I went down. There was this shack, and there she was."

It should be of some comfort to lesser mortals that even deans fantasize.

After Harvard Medical (cum laude, 1952) he had gone to Mass General for his internship and residency, thence to NIH's Endocrinology Branch, National Cancer Institute, Bethesda; to Oak Ridge for nuclear studies; thence to UAB where he was chief resident under Tinsley R. Harrison. After that he studied in Paris and traveled some. In his 1957 trip to Africa, he met with Albert Schweitzer. (See photo.)

Certified in Internal Medicine, Endocrinology and Nuclear Medicine, Dr. Pittman served during the 1956-71 period in a variety of teaching, service and research capacities at UAB, leaving in 1971 for a two-year stint in the VA, Medical Education and Research Division, Washington, during which time he was also professor of medicine at Georgetown.

In 1973, Dr. Pittman was appointed Dean of the UAB school of medicine, deputy vice president for health affairs; and executive dean, University of Alabama System Medical Education Program.

Dean Pittman and his wife have published, jointly and individually, many papers in the field of endocrinology. In 1971, Dr. Pittman reported the first case of hypothalamic hypothyroidism and still calls it his best report. Published in **The New England Journal of Medicine,** it described the case of a 19-year-old Alabama youth who suffered head injuries at 12, causing a lesion of the hypothalamus, resulting in retarded growth rate.

Target for Tomorrow

Dean Pittman has also written extensively about medical education and is fully aware that medical schools may well feel the concurrent forces generated by the GMENAC prediction, which is also his, that an inexorable surplus of physicians will occur in this decade.

Dean Pittman, pointing to the **pedisolane,** emphasizes what this may mean here in Alabama, where the state's medical schools will produce more doctors in the 1980s than the cumulative total of all previous years of Alabama medical education.

This doubling cannot be cut off at this point because of the nature of the medical pipeline, or pedisolane, which was expanded under federal prodding and enticement when the shortage of physicians was perceived as the national problem.

Symptomatic of changing federal priorities, perhaps, was the decision in the 1960s to try three-year medical schools. For that conversion, UAB received $3 million. Later, it received $7 million for converting the curriculum back to four years.

The Medical Center owes its greatest growth to several factors:

The entrepreneurial skills of Dr. Joseph Volker, who came from the "Northeast Mafia" (as Dean Pittman refers to the financial domination of medical education in the post-war era), having been dental Dean at Tufts; to the powerful influence of Senator Lister Hill, who often notified UAB of new programs long before other schools had notice, who naturally favored his home state, and who was Mr. Medicine in the United States Senate; to the 1950 arrival of the only American who had started three brand new departments of medicine, the renowned Tinsley Harrison, M.D., who also knew his way around the Northeastern Mafia.

Drs. Volker, Harrison and Champ Lyons were thus vital ingredients at a time of intense post-war building. The 50s were good times, but then came the 60s, with racial strife, Bull Conner and his police dogs on the nation's tube nightly. Finally, the tragic bottom—Sept. 15, 1963, when the black church was bombed on Sunday morning, killing four children.

The world was horrified. It was impossible to lure good physicians to Birmingham or anywhere else in Alabama after that, Dean Pittman recalls. Assistant professorships, with ideal research opportunities and competitive salaries, went begging. One after another of those sought for UAB jobs said almost exactly the same thing: "Of course, I couldn't possibly move to Alabama." Even some Alabama natives said they were ashamed of their state and willing to forget it.

The Long Climb Back

In 1964, bank deposits were down 38% in Birmingham. At this juncture a secret businessmen's committee began working to restore tranquility in Birmingham. Dean Pittman heard about the existence of the committee from the Chicago Tribune, while attending an endocrinology meeting in Chicago.

But it was not until 1966 that things began to turn around for UAB. In September of that year, three years after the church bombing, John W. Kirklin, M.D., highly regarded Mayo heart surgeon, accepted the call to move to UAB, an event that attracted the notice of the medical world.

That broke the recruiting log jam for the Medical Center. Slowly at first, other good men answered the call to

move to Alabama. The grants and funds followed in their train.

Today, looking at the sprawling complex, signs of expansion everywhere, the largest employer in Birmingham, an annual budget of $100 million, it is possible to say that nothing succeeds like success. But back in the 60s it was touch and go. For a time, it appeared UAB's future was behind it.

And The Future?

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"At the same time, we must turn out physicians prepared for the unusual circumstances of this decade.

"There are not mutually exclusive goals. On the contrary, they fit hand in glove. Both are service-oriented.

"Of course, there is the old dilemma of how you teach clinical medicine, in which you obviously have to practice and render a service, without competing with other people who are doing it. In fact, there is no way you can avoid it. Hopefully, concentrating on research and development will minimize conflict with practicing physicians."

Dean Pittman is regarded as an utterly honest, open, friendly physician-educator. Even those who see academic medicine as a threat to private practice find it difficult not to like and admire him.

The brickbats tossed at him, extramurally and intramurally, may give him pause to reflect on the hellfire and damnation warnings of the old Davidson Sunday school teacher long ago:

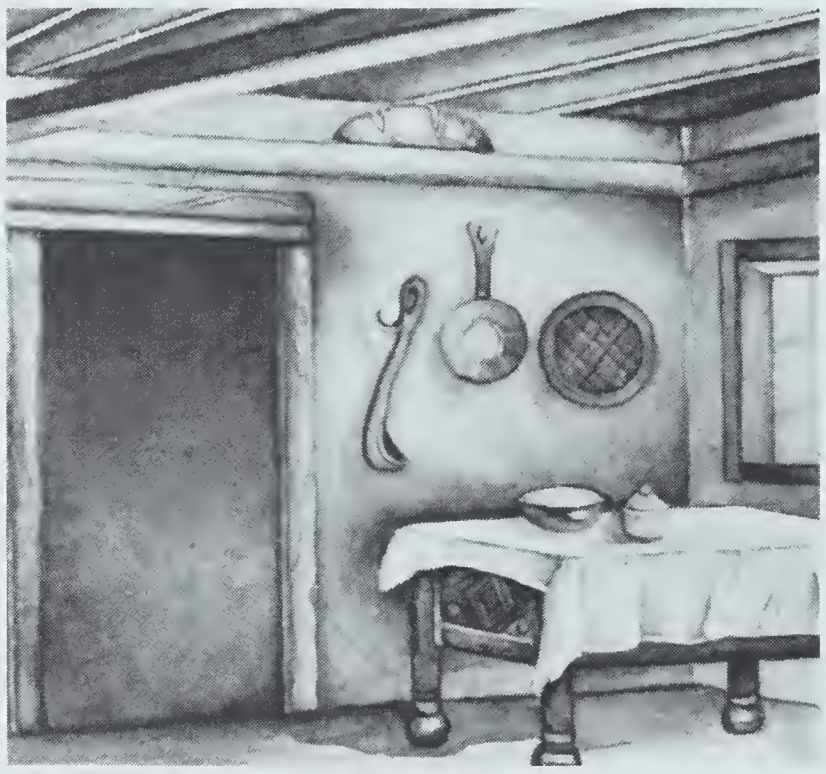
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1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on an adjoining page.

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Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

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WARNING:

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PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

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Kawasaki's Disease—*Continued from page 24*

REPORT OF A CASE

The patient was an 18-month-old black female who had an upper respiratory tract infection approximately two weeks prior to admission which improved. She started having a subjective fever and mild diarrhea with no vomiting one week prior to admission. Her mother noted that she pulled at her ears. The patient was seen by her physician and diagnosed as having bilateral otitis media. She was started on Amoxicillin. The patient wet only one diaper during the day prior to admission. On the morning of admission her mother noticed a rash over her entire body.

On physical examination, the patient presented as a well-developed, well-nourished, alert but irritable child. Temperature was 104 F, pulse was 122, respirations were 28, height was 85 cm, and weight was 10.7 kg. She had a maculopapular rash over the trunk, extremities, and face. She also had desquamation of the epidermis with underlying erythema in the diaper area. There were a few prominent right anterior cervical nodes present. On examination of the ears, the tympanic membranes were slightly reddened with a good light reflex. The throat was clear. The neck was supple. The heart had a sinus tachycardia and a normal S1 and S2. The remainder of the physical was within normal limits.

The white blood cell count on admission was 9,100/cu mm, with a differential of 70% polys, 8% bands, and 18% lymphocytes. Later this increased to 21,500/cu mm, with a differential of 47% polys, 40% bands, and 8% lymphocytes. The hemoglobin was 10.9 gms and hematocrit was 32.9%. The platelet count went from 490,000/cu mm to 750,000/cu mm. The erythorocyte sedimentation rate (ESR) went from 96 mm/hr to 143 mm/hr. A lumbar puncture revealed a white blood cell count of 20 cu/mm with a differential of 2 polys and 18 lymphocytes; protein was 35 mg/d1 and glucose was 65 mg/d1. A nasopharyngeal culture grew Hemophilus influenza. A bone marrow biopsy revealed marked myeloid hyperplasia. A skin biopsy revealed upper epidermal necrosis with subcorneal separation. Quantitative immunoglobulins revealed an IgM of 282 mg/d1 (normal 56-224). Appropriate collagen vascular studies, radiological studies, and bacteriological cultures were all negative.

Upon admission the patient was started on maintenance IV fluids. Cephalexin (100 mg/kg/day) was

TABLE II

DIFFERENTIAL DIAGNOSIS OF KD AND SSSS

	Kawasaki's Disease	SSSS
Seasonal Variation	No seasonal variation[9]	No seasonal variation[10]
Average Age	4.2 years[3]	5 years[11]
Fever	Present, mean duration 12 days[9]	Present, mean duration 2 days[10]
Conjunctiva	Injected[9]	Conjunctivitis, usually purulent[10]
Upper Respiratory Tract Mucous Membranes	Injected pharynx Dry, fissured or injected lips "Strawberry" tongue	May have an initial denudation of lips, usually no severe mucous Membrane involvement[11]
Peripheral Extremities	Edema, erythema, desquamation, periungual desquamation[3]	Erythema, mainly in neonates[10]
Exanthema	Polymorphous, mainly truncal[3]	Erythema, prominent on face and intertriginous areas spreading peripherally; bullae[10]
Cervical Adenopathy	Present[3]	Not described
Leukocytosis	Present[9]	Present[10]
Elevated ESR	Present[9]	Not described
Thrombocytosis	Present[9]	Not described
Etiology	Unknown[4]	Phage-Group II staphylococci[10,11]
Mortality Rate	2.8%[9]	3.6%11

TABLE I[3]

DIAGNOSTIC CRITERIA FOR KD

1. Fever of five or more days*
2. Bilateral conjunctival injection
3. Changes of the mucous membranes of the upper respiratory tract:**
   - Injected pharynx
   - Injected lips
   - Dry, fissured lips
   - "Strawberry" tongue
4. Changes of the peripheral extremities:**
   - Peripheral edema
   - Peripheral erythema
   - Desquamation
   - Periungual desquamation
5. Rash, primarily truncal and polymorphous
6. Cervical lymphadenopathy

*The diagnosis of KD is considered confirmed by fever and four of the remaining five criteria and if the illness cannot be explained by some other known disease process.
**One or more of these findings is sufficient to establish the criterion.

started to cover for possible cervical adenitis. The following day the rash was more urticarial in nature, and the patient remained irritable. The cephalexin was discontinued, and she received one dose of IV cefazolin. On the second hospital day, the patient's lips were noted to be cracked and bleeding. A lumbar puncture was consistent with a viral meningitis. A dermatology consult was obtained, and the differential diagnosis at this time was drug induced or viral toxic epidermal necrolysis versus staphylococcal scalded-skin syndrome. A skin biopsy was done. The patient was started on chloraphenicol (10 mg/kg/day) and prednisolone (2 mg/kg/day). The perineal desquamation had spread over the trunk. The following day the patient became afebrile and clinically less irritable. Over the next three days, she remained afebrile and the desquamation began to clear. The skin biopsy results were consistent with staphylococcal scalded-skin syndrome. Since the patient improved on the regimen of chloraphenicol and prednisolone, they were continued. On the seventh hospital day, the prednisolone was tapered and discontinued. The next day the patient again became febrile and remained so for the next four days; but, she otherwise remained clinically improved. She slowly defervescenced over the twelfth and thirteenth hospital days. A bone marrow biopsy was done and found to be consistent with a bacterial inflammatory process. A repeat lumbar puncture was normal. The chloramphenicol and IV fluids were discontinued. By the fifteenth hospital day desquamation of the hands and feet was noted. It was felt that retrospectively the patient had Kawasaki's Disease and she was started on aspirin (100 mg/kg/day). On the sixteenth hospital day, she was discharged on aspirin.

DISCUSSION

It can be seen that the patient indeed met all the diagnostic criteria for KD (Table I). She had fever lasting approximately two weeks, cracked and bleeding lips, a maculopapular rash becoming urticarial, cervical adenopathy, and desquamation of her hands and feet. Also, there were no findings diagnostic of any other disease. Laboratory findings seen in KD, which she had, include leukocytosis with a left shift, mild anemia, thrombocytosis, CSF pleocytosis, elevated IgM, elevated ESR, and negative ASO titer and ANA.[3,4] Another finding previously described was the patient's defervescence on steroids.[2,5] At the time of discharge, she was started on aspirin to prophylactically treat the feared complication of coronary thrombosis which is a cause of sudden death in this disease.[6]

Of interest was the initial diagnosis of staphylococcal scalded-skin syndrome (SSSS). This was based primarily on the finding of desquamation with underlying erythema in the diaper area[7] and the skin biopsy findings consistent with SSSS.[8] However, as the clinical course progressed, it became obvious that the patient's physical and laboratory findings were more consistent with KD (Table II).

Although its etiology remains unknown,[4] there has been occasional association of KD with the staphylococcus in the literature. In 1974, Kawasaki, et. al., reported that out of 227 positive throat cultures in children with KD, 57 grew staphylococci.[2] Todd, et. al., in 1978, noted similarities between KD and toxic-shock syndrome which is associated with phage-group I staphylococci.[12] Whether or not staphylococcus is identified as the etiology of KD certainly remains to be seen.

In conclusion, this case is presented to illustrate the difficulties that may be involved in the differential diagnosis of KD and to emphasize the need for the primary care physician to consider KD in any febrile mucocutaneous illness in a young child.

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TALKING WITH PARENTS FOLLOWING SUDDEN INFANT DEATH SYNDROME

Manuel L. Cepeda, M.D.

ABSTRACT

In Sudden Infant Death Syndrome, parents do not have the benefit of a period of anticipatory grief. As mourning takes place, special psychological issues associated with the death of a child occur. A part of individualized management is to bring up and discuss issues with parents. Guidelines are given for this task.

The initial response by parents to Sudden Infant Death Syndrome may be denial, shock, and disbelief. They often turn to the physician. An understanding of the special emotional sequelae of an infant death allows individualized psychological management of the mourning process.

Abrupt Infant Death and Normal Mourning

The task of mourning a child's sudden or abrupt death without the benefit of a period of anticipatory grief has been summarized.[1] Initially parents must accept that the death has actually happened, and that it is not all a bad dream from which they will soon awaken. A resolution of anger and guilt related to the real or imagined events surrounding the child's death is also necessary. They must attenuate their emotional investment in the deceased child. The end result of successful grief and mourning is a return to the previous level of psychological and social functioning. Although occasionally the death serves as a growth process for the family, this may be the exception.[2,3,4] Psychiatric sequelae have been reported.[5] Some professionals involved have described their personal experiences and the difficulty in readjusting.[6,7]

A prominent characteristic of SIDS mourning is guilt. Hostile or angry feelings are frequently linked with the expression of guilt. The hostility may be expressed towards relatives and close friends. If there has been considerable contact with police and social agency investigations, the anger may be directed towards them. It may be easier to get angry with a physician than to face personal worries that they as parents did not do all that could have been done to take care of the child.

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What Parents May Know of SIDS From Popular Literature

Parents usually know from popular literature that the child is healthy prior to death. On the cognitive level, there is always the lingering doubt. Professionals may inadvertently reinforce the doubt.[8] A number of children involved in a sudden infant death have had a mild respiratory infection at the time of death or just prior to death. Even though the respiratory infection is not considered by physicians to be severe enough to account for the death, its presence reinforces parental concerns about neglect which they may attribute to themselves or to physicians who had seen the child recently.

The cause of SIDS in unknown. Current research includes studying prolonged sleep apnea, chronic oxygen deficiency and enzyme abnormalities. Most reseachers agree that multiple factors with a loading of variables are involved. This is difficult for many parents to understand.

The child with SIDS is often premature and the mother is frequently under twenty years old. At this age, the predominant mode of communication of needs, wants, or difficulties is nonverbal. The young and inexperienced mother may not have the skills to understand what is being communicated. SIDS is disproportionately represented among those with no ready access to their own parents and those in the lower socio-economic classes. Frequently, the parents do not have role models available from which to learn parenting skills. Although future research may suggest differently, the literature at present does not present SIDS as a totally random event. This is especially true of the British literature.[9]

Emotional Sequelae For Parents

The emotional sequelae are similar to those following abrupt accidental death of a child. In both instances, the parent often feels directly responsible for what happened to the child. In cases of accident, death might have been prevented with better judgement or supervision. For SIDS, the equivalent fantasy concerns a visit to the doctor sooner, or to a "better" doctor sooner!

There are many psychological meanings to the loss of a child. Some of them have been summarized.[10,11] One common issue concerns the death of a child reactivating earlier disappointments or losses which the child's parents experienced in relationship in their own parents as they were growing up. The death of a child obviates the possibility for this occurring.

The child's personality may be considered a psychological extension of the parents' own personality. As such, the child often represents some of the parents' wishes and hopes for a better future. The phrase commonly used to express this, is "my child is going to have all of the things I never had." Such a situation may allow parents to achieve vicariously through the child what the parent had always wished to achieve, yet was never able. Part of the anger seen may be anger because the parents have lost the opportunity for vicarious achievement. The anger may be thinly disguised and clearly directed toward the deceased infant.

In all infant deaths, there must be a resolution of an emotional tie between the mother and infant, and the father and infant. Very early in pregnancy, most mothers develop a psychological relationship with the unborn child in which personality characteristics and future achievements are imagined. Mothers will very often talk about this when asked about daydreams. No abrupt change in the character of this psychological bond occurs with birth. For fathers, psychological attachment and associated daydreams often come later than with the mother. Many fathers report beginning to be attuned to their imagination and hopes for the future of the child as late as delivery or the first two or three months of life. Should death be prior to this, fathers may not experience as intense a grief and mourning reaction as the infant's mother experiences.

Young parents who have never personally experienced serious illness, and whose parents are still alive and healthy may have illusions of invulnerability to illness. This is "it can't happen to me" thinking. Because of this theme, when an infant dies, a threat to the parents' self-esteem results. Any feelings of invulnerability are challenged. When the parents are mourning the loss of a child, they are also often mourning the loss of their own illusions of invulnerability to disease and possibly death.

In mourning the death of an infant, the parents must also work through past losses in their life which the current loss of the infant symbolizes. When the intensity of the current mourning reaction appears to be out of proportion or extending for a longer period of time than the cultural pattern would suggest, the past pattern of losses in the parents' lives may need to be explored.

Some parents may seek a replacement for the infant that died. A pet or a new and creative hobby may be chosen. Pregnancy or adoption may be discussed. It may be that these latter measures do not help. Often the suggestion is made that parents wait a year before considering pregnancy or adoption. This allows time for resolution of the grief and mourning process. It is preferable that a child be wanted more for his own individual characteristics than as a replacement for an infant who died. Each situation must be assessed individually according to the situation, culture, and personality.

Anniversaries are often difficult times. The anniversary of the baby's birth or of the baby's death, Christmas, Easter, and those times in which any subsequent children reach the age and date at which the child had previously died, may bring on an exacerbation of grieving or brief period of depression.

The most notable phase of the grief and mourning process lasts from two to four months. This is when the parents' mourning is obvious to others. Most grieving has attenuated by six to eight months. Twelve months is probably the maximum time for normal grieving. Pronounced grieving which lasts longer than a year is unusual and may be pathological. Painful personal mourning which is not obvious to others except by self-report may last twelve to eighteen months.

The readjustment following unexpected death takes time. Support during the initial grieving period is useful and comfortable for parents. It does not necessarily eliminate the desirability of follow-up counseling with the family. Referral to lay groups staffed by volunteers who have themselves experienced a SIDS death in the family may be helpful.[12]

There are a series of tasks to be accomplished during the mourning process which cannot be speeded up. Meeting with the parents and allowing them to talk may help them to be more comfortable.

Special Management Problems

As parents work through the stage of anger concerning loss, it is not uncommon for part of this anger to be displaced upon the surviving children. Parents may become unduly upset with little things the child does, which previously they would not have given a second thought. It is the parents' ability to talk about their feelings of loss, grief, sadness and disappointment concerning the loss of the infant that helps the child to accept these feelings.

Surviving children may become much more valued objects to the parents than they had been initially. The thought "I can have more children if I want" occurs. Yet they also worry that if they failed once, they will fail again. Difficulties may also occur when the surviving child becomes a substitute for the lost child, and the surviving child is not handled in an age appropriate manner.

Summary

This paper has presented a framework for understanding the emotional sequelae following Sudden Infant Death Syndrome. The discussion has been in terms of the natural progression of the parents' grief and mourning process. Several possible psychological

Continued on page 50

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***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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ACTINOMYCOSIS IN ALABAMA

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Actinomycosis is an infrequently reported anaerobic infection but recent experience with three cases suggest that this disease is more common than is realized. Clinically actinomycosis presents in a cervicofacial, thoracic or abdominal location with formation of a hard mass and multiple draining fistulae discharging characteristic sulfur granules. Diagnosis depends on histologic demonstration of the organism and sulfur granules or on growing the organism from infected tissue. Long term treatment with penicillin or tetracycline results in cure in over 90% of cases.

Key words: Actinomycosis
Sulfur granules

ACTINOMYCOSIS IN ALABAMA

Actinomycosis is an uncommon anaerobic bacterial infection. Review articles have documented 24 cases over 24 years at the University of Tennessee[1] and 57 cases observed over 36 years at the University of Iowa hospitals.[2] Recent experience with three cases of actinomycosis at a single northern Alabama county hospital suggests that this infection may be more common than is realized. In addition to the gamut of clinical expression of these cases deserves special mention.

CASE REPORTS

Case # 1

A 28 year old male was admitted with a one month history of fever, malaise, weight loss, and productive cough. His family history was positive for tuberculosis. Physical examination revealed a hemoglobin of 13.3 grams, hematocrit 40.7%, and WBC 15,000. The urinalysis was normal and chest x-ray revealed bilateral pulmonary nodules. An intermediate strength PPD skin test was positive. The patient underwent thoracotomy with resection of a nodule. Histologically the nodule was an abscess with acute and chronic inflammation and reactive fibrosis. Sulfur granules containing filamentous gram positive rods consistent with actinomycosis were identified but no acid fast bacilli or fungi were seen. Postoperatively the patient was treated with intravenous aqueous penicillin G, 18 million units/day for four weeks, followed by oral phenoxymethyl penicillin, two grams/day for six months. He also received prophylactic oral INH, 300 milligrams/day, for one year. Followup examination one year after discharge revealed no recurrence of the pulmonary infiltrates.

Case # 2

A 38 year old male was admitted with a four month history of weight loss and night sweats and a 10 day history of right sided thoracic pain. Physical examination revealed a chronically ill appearing male with a temperature of 101.4° F. The lungs were clear and the abdomen was distended and tympanitic. Laboratory values included a hemoglobin of 9.7 grams, hematocrit 3.6%, WBC 7,800, and a normal urinalysis. The chest x-ray was clear except for bullae formation in the lungs. An intermediate strength PPD skin test was non-reactive. Because of progressive abdominal distention, pain, and ileus, the patient underwent laporatomy for suspected small bowel obstruction. At surgery a hard mass in the region of the cecum was found along with multiple nodules in the omentum and liver. Histologic section of one of the nodules revealed actue and chronic inflammation with fibrosis and sulfur granules containing filamentous gram postive rods consistent with actinomycosis. The patient was treated with intravenous aqueous penicillin G, 20 million units/day, for six weeks along with intravenous gentamicin sulfate, 240 milligrams/day, for the first ten days of treatment. His postoperative course was complicated by a right thoracic empyema which demonstrated mixed anaerobic gram negative rods and filamentous gram positive rods consistent with actinomycosis. He was discharged on oral phenoxymethyl penicillin, three grams/day for one year. Sixteen months after discharge the patient was readmitted to the hospital with a small bowel obstruction. At laporotomy multiple adhesions were demonstrated but there was no evidence of residual actinomycosis. His postoperative course was uneventful.

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Case # 3

A 33 year old male was admitted with a two week history of right lower quadrant abdominal pain. Physical examination revealed a temperature of 100° F. and a tender mass in the right lower quadrant. Admission laboratory demonstrated a normal complete blood count, urinalysis, and chest x-ray. Because of suspected appendicitis, the patient underwent surgery where a thick walled, chronically and acutely inflamed, retrocecal appendix with adherent dense scar tissue was found. On histologic section a mixed suppurative and chronic inflammatory response was seen along with a sulfur granule and filamentous gram positive rods consistent with actinomycosis. Postoperatively the patient developed purulent wound drainage which on gram stain demonstrated gram positive cocci, gram negative rods, and filamentous gram positive rods. The patient made an uneventful recovery on parenteral ampicillin, 12 grams/day, which later was changed to aqueous penicillin G, 12 million units/day, for a total of four weeks to be followed by oral phenoxymethyl penicillin, 2 grams/day, for an anticipated 12 months.

Discussion

The etiologic agent of actinomycosis, Actinomyces israelii, less commonly A. bovis or A naeslundi, is a gram positive branching anaerobic bacillus which can be found as normal flora in the oral cavity, tonsillar crypts, vermiform appendix and colonic diverticula. Actinomycosis is considered to be an endegenous infection with antecedent disease or surgery predisposing to infection in up to 45% of cases. Infected tissues become indurated and form multiple draining fistaulae discharging characteristic sulfur granules.[3] Sulfur granules in cutaneous structures can be associated with nocardiosis as well as actinomycosis but visceral sulfur granules almost always represent actinomycosis.[4]

Actinomycosis usually spreads by direct extension without respect to tissue planes although hematogenous and lymphatic dissemination are described.[5] In vitro most strains of actinomycetes are sensitive to penicillin, ampicillin, cephalothin, erthromycin, tetracycline, clindamycin and chloramphenicol.[6] Recommended therapy includes parenteral penicillin G, 6-10 million units/day for two to four weeks, followed by oral phenoxymethyl penicillin 500 mg four times/day for 6-18 months to prevent relapse. Tetracycline and lincomycin also are satisfactory.[7] Diagnosis depends upon demonstration in tissue sections of sulfur granules and typical filamentous gram positive rods or upon recovery of actinomycetes by culture.

Clinically actinomycosis most commonly presents as three principal syndromes. Cervicofacial actinomycosis usually appears as a firm indurated submandibular mass which is tender and characteristically forms multiple draining fistulae. Generally the clinical course is chronic but it may be acute presenting as a tender cervical mass associated with high grade fever and chills. Often there is an antecedent history of dental disease or surgery.[8] The cervicofacial form is the most common clinical presentation of actinomycosis in two large series.[2,3]

Thoracic actinomycosis may involve lung, pleura, mediastinum or chest wall and in one series the thorax was the most commonly involved anatomic area. Clinical manifestations include chest pain, cough, hemoptysis and fever and chest roentgenogram shows either unilateral or bilateral infiltrates occasionally in association with pleural effusion.[9] Case 1 presented with multiple pulmonary nodules simulating metastatic neoplasm or septic pulmonary emboli and case 2 demonstrated an actinomycotic empyema in association with abdominal actinomycosis.

Abdominal actinomycosis most frequently follows operations for acute appendicitis or perforation of an appendix or colonic diverticulum but may involve any intraabdominal organ and may present as a disseminated intraabdominal infection. Pelvic actinomycosis is described in association with the intrauterine contraceptive device. Common clinical features include a chronic localized inflammatory mass, fever and draining cutaneous fistulae.[10] Case 2 presented with an acute abdomen in association with weight loss and initially the patient was thought to have a neoplasm with a small bowel obstruction. Case 3 developed abdominal pain simulating acute appendicitis and was discovered to have an actinomycotic periappendiceal abscess with a postoperative draining sinus through the abdominal wound.

The diagnosis of actinomycosis uncommonly is made upon admission to the hospital but with appropriate therapy cure rates of up to 90% can be achieved. This justifies Weese and Smith's description of actinomycosis as a "diagnostic 'failure' with good prognosis after treatment".[2] The three cases presented support this conclusion and suggest that actinomycosis may be more common than realized in Alabama.

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The Changing Status of Diphtheria Immunity:
Serological Survey of Alabamians in Two Counties

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Diphtheria is a contagious disease caused by the nonsporulating, nonmotile, gram-positive rod **Corynebacterium diphtheriae.** The disease was a common, often fatal disorder until immunization became available more than 50 years ago.[1] During the late 1800's diphtheria epidemics swept the United States and European countries, but since about the turn of the century the number of diphtheria cases in these areas has dramatically declined.[2] Sporadic outbreaks, however, have been reported in recent years,[2,7] and the case fatality ratio has remained about 10 percent for the past 60 years.[2] Most cases of diphtheria in the United States occur in unimmunized individuals, and the relative risk of death has been found greater for subjects without a history of previous immunization.[8]

It has been stated that a population which contains less than 25 percent of its inhabitants susceptible to diphtheria provides insufficient opportunities for the spread of infection. That population may thereby be protected against both epidemic and endemic diphtheria.[9] The following diphtheria immunity survey was conducted in two counties in Alabama in order to provide a rough estimate of degree of protection against this disease.

Methods

The subjects evaluated for diphtheria immunity were primarily residents of two counties, Tuscaloosa (85 subjects) and Tallapoosa (20 subjects). Those from Tuscaloosa County were patients of the Capstone Medical Center whereas subjects from Tallapoosa County were evaluated during a comprehensive health screening carried out by the University of Alabama Student Coalition for Community Health.

Portions of sera from patients undergoing routine lab testing in these areas were evaluated for diphtheria antibodies by toxin neutralization titrations in the skin of rabbits.[10] Testing was performed initially at the Mas-

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sachusetts Department of Public Health Biologic Laboratories and, later, at the University of Alabama using standardized methods.[10] Results are expressed in antitoxin units per ml of sera in comparison to the standard antitoxin provided by the Bureau of Biologics of the Food and Drug Administration. Patients with antibody levels less than 0.01 antitoxin units (AU) were considered at risk for developing diphtheria as previously described.[11]

Results

Some demographic features of the population under study are shown in figures 1 and 2. Ages ranged from 13 to 86 in Tuscaloosa County and from 15 to 78 years in Tallapoosa County. In both counties the majority of subjects was female and white. Overall, protective immunity was found in 82 percent of the 105 subjects studied (85% immunity in Tuscaloosa County and 70% in Tallapoosa County). No significant differences were detected in immune status among different sexes or races. Immunity in both counties appeared to decline somewhat among middle-aged individuals but the results were not significant.

Comment

There have been few serological surveys for determination of diphtheria immunity in this country. In 1965 Levine and Wyman[12] reported that the majority of adults over age 30 did not have protective levels of diphtheria antibody. Crossley and coworkers in a recent study of 123 urban Minnesota adults found that only 23 percent of subjects had protective antibody.[13] In a preliminary survey of 36 Tuscaloosa subjects from one to 99 years of age, we found 83 percent had protective antibody against diphtheria.[14] This degree of immunity was much higher than previous immune surveys in other areas of this country.[12,13,15,16] The study was therefore expanded and enlarged to include residents from two counties. The results again indicate a relatively high degree of immunity (82%) among the adolescents and adults surveyed in the two counties. In addition to active immunization with diphtheria toxoid, previous inapparent infection of some Alabamians with toxinogenic strains of **Corynebacterium diphtheriae** has undoubtedly played a role in acquisition of immunity to diphtheria.

This limited serological survey obviously can provide only a very rough estimate of possible statewide immunization status. Although the results are very favorable in comparison to other surveys[12,13,15,16] and the reported incidence of diphtheria in Alabama and the rest of the nation has plummeted, complacency concerning diphtheria immunization should be decried. Even though a population with a relatively high level of immunity may be protected against both pandemics and epidemics of diphtheria, minor outbreaks may still occur.[9] Additionally, although a new state law requires school children to be fully vaccinated, there are still many adolescents[14] and older individuals who lack protective immunity. Many Alabamians have never received primary immunization against diphtheria; also, recommended booster immunizations with combined tetanus and diphtheria toxoids (adult Td) at 10 year intervals to sustain immunization is often over looked. Although diphtheria toxoid is over 90 percent effective in inducing antibody response, this immunity wanes in time.[17] The future role of inapparent infection is sustaining protective immunity can neither be predicted nor relied upon. Those Alabamians whose protection is entirely secondary to immunization in infancy may constitute, with the aging of the population, and continuously increasing proportion of protected subjects. Therefore, because of waning immunity with age, the number of susceptible individuals in the older segments of the population may actually increase rather than diminish.[9] As Millian[16] has stated "there is no excuse for the occurrence of even one case of this preventable disease." Full primary immunization and periodic boostering is still recommended. Some workers have had considerable success in augmenting diphtheria and tetanus immunity

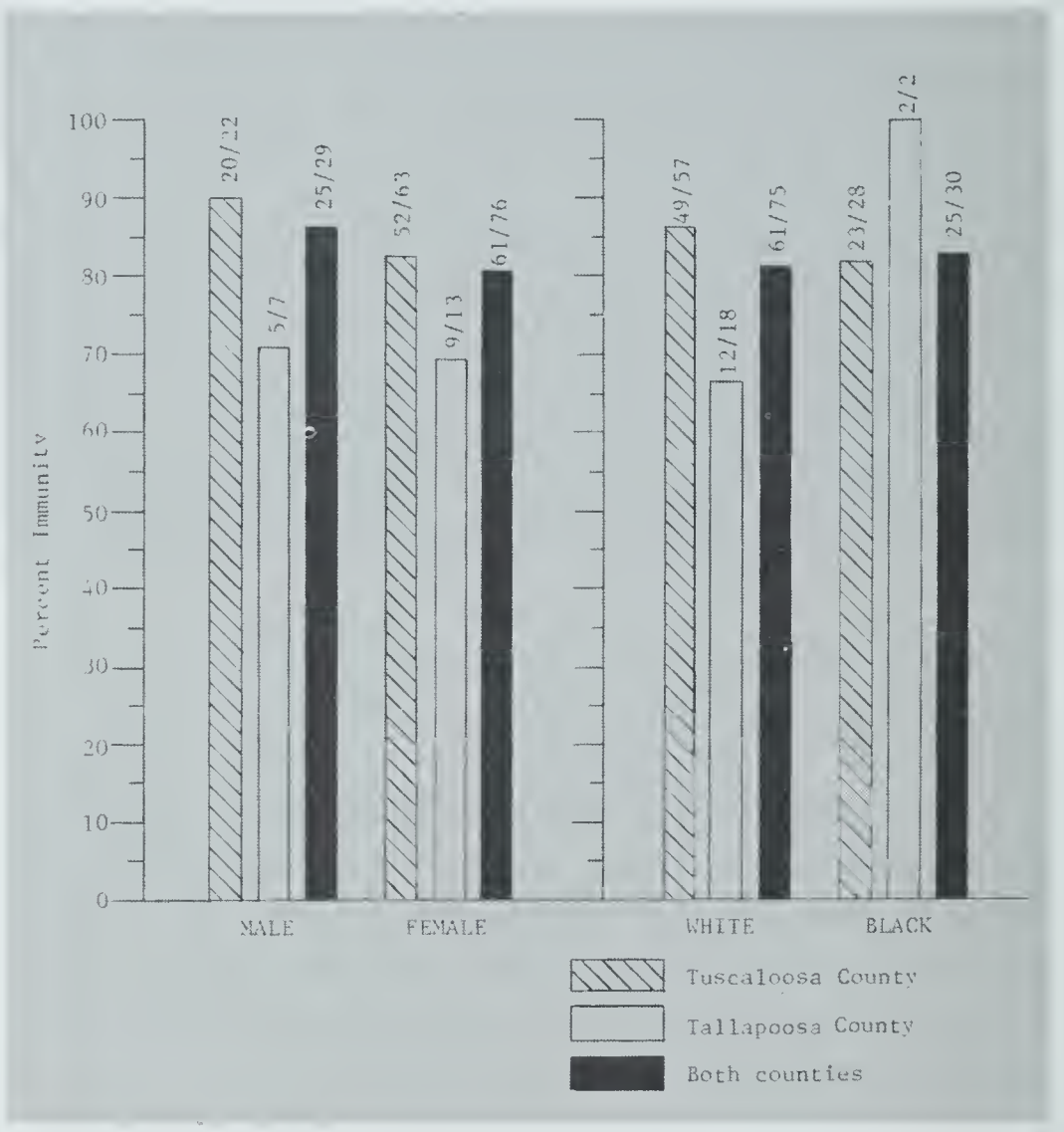


Figure 1 Caption

Percent immunity against diphtheria among different sexes and races in Tuscaloosa County and Tallapoosa County. Numerator is the number of subjects immune with protection defined as serum antitoxin titer $\gtrsim$ 0.01 AU/ml. Statistical analyses:

1. Overall difference between counties:
   $x^2 = 1.47$, $p = .23$, d.f. = 1 (Yates correction)
2. Sex (Mantel-Haenszel Method)
   a. Difference between counties
   $x^2 = 0.20$, $p = .65$, d.f. = 1
   b. Association between sex and immune status
   $x^2 = 0.69$, $p = .21$, d.f. = 1
3. Race (Mantel-Haenszel Method)
   a. Difference between counties
   $x^2 = 0.51$, $p = .48$, d.f. = 1
   b. Association between race and immune status
   $x^2 = 0.62$, $p = .43$, d.f. = 1

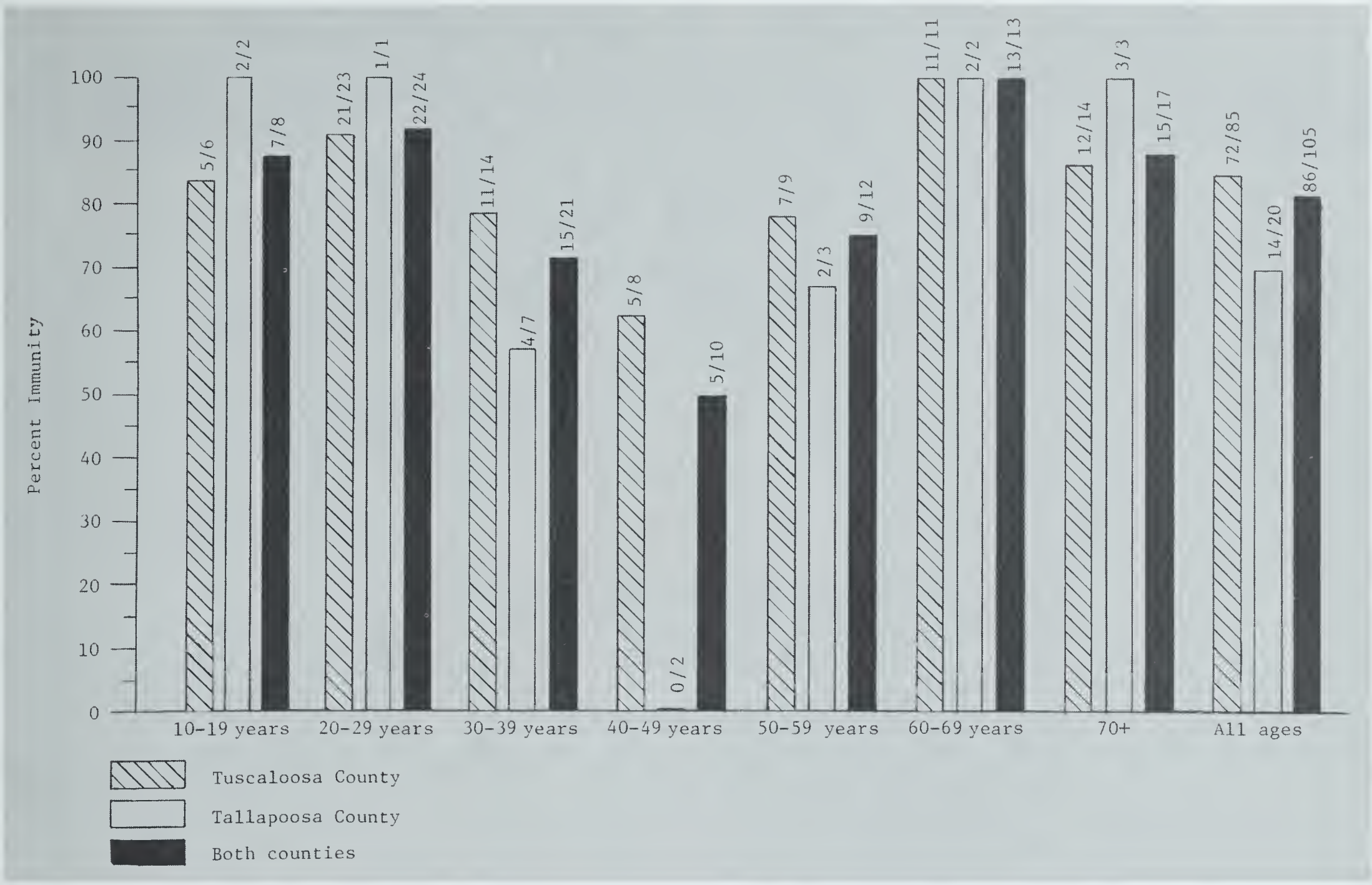


Figure 2 Caption

Percent immunity against diphtheria among different age groups in Tuscaloosa County and Tallapoosa County. Numerator is the number of subjects immune with protection defined as serum antitoxin titer $\gtrsim$ 0.01 AU/ml. Statistical analyses: age was analyzed with a 2-way analysis of variance. There was no significant interaction. Also, age was not significantly different between immune and non-immune subjects ($F = 0.18$, $p = .67$, d.f. = 1,101). The mean age for immune subjects was 45.3 with a standard error of 2.32. The mean age for non-immune subjects was 43.1 with a standard error of 3.52. There was also no significant difference between counties ($F = 0.01$, $p = .91$, d.f. = 1,101).

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by giving hospitalized patients without a recent history of immunization routine booster injections.[8] Additionally, patients receiving tetanus toxoid boosters for minor trauma can receive Td instead of tetanus toxoid alone.[18,19]

The recent elimination of smallpox offers a vivid illustration of the success that may be achieved with effective immunization programs. Considering the dramatic decline in reported diphtheria cases in this country, continued attempts at complete eradication of this potentially lethal disease must be supported to the extent possible.

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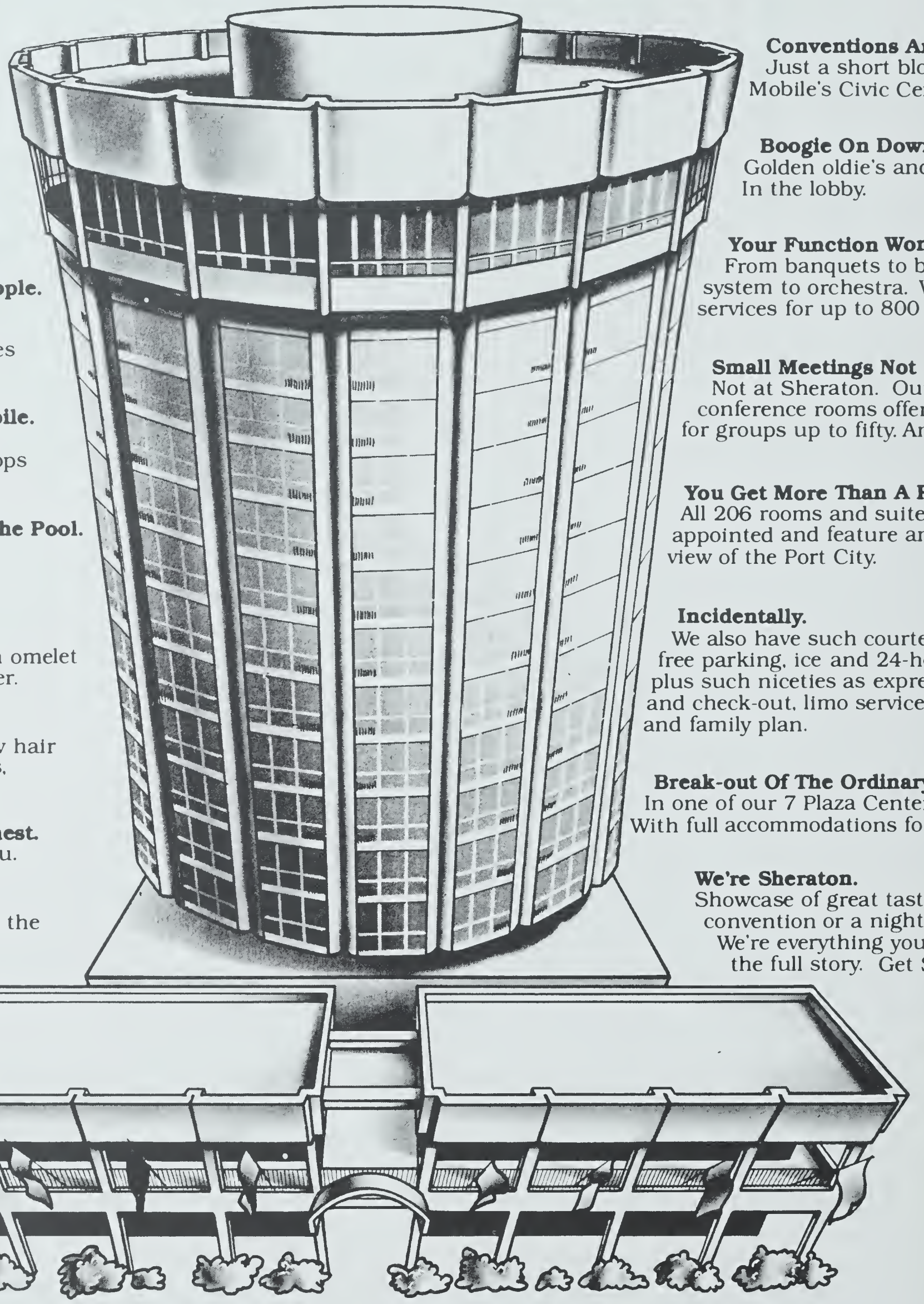
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Physician Heal Thyself

by
F. M. Phillippi, M.D.*

The following accounts of my attempts at handling my own problems is similar I suspect, to that followed by many, if not most, physicians.

For some time I had planned on retiring on my 65th birthday, not desiring to practice to the time of mental senility nor of having to walk with a cane. For 34 years I had allowed myself practically no time at all for anything except activities pertaining to medical practice.

I once raised a great bird dog who won the 1967 Open National Championship. I witnessed very few of her performances. There were other things I wanted to pursue. Perhaps foolishly, I wanted to participate in the now world wide Masters Track and Field Events. I wanted to hunt. I also hoped to do some writing. My wife and I had begun construction on our new home near Camden, and I had already begun the development of a quail preserve.

In my enthusiasm to get started, I stopped medical practice in June, six months sooner than I had originally planned. Since through the years I had followed no physical conditioning program whatsoever, I realized that I should first get a physical evaluation.

It was found that I was much overweight. I was a mild diabetic with elevated blood lipids and with an abnormally low high-density cholesterol percentage. My cardiologist friend found abnormal ST segment shifts and the appearance of PVC's on the treadmill exercise tracings. I did not pass the radioactive nucleotide scan regarding myocardial function. This physician, himself a runner, advised me to have coronary angiography performed if I contemplated doing the type of running which I proposed.

I told him that perhaps these findings might be expected in one 65 years of age who had not subjected his myocardium to any degree of stress for over 34 years and that I had had no angina. I stated that I did not mind taking some risk, but since I did not wish to commit suicide I would consent for the angiography. He performed the angiography and obtained excellent visualization. Much to his surprise my coronary arteries were entirely normal. My older son, a third year pathology resident, had come fully expecting me to submit to coronary bypass surgery.

As soon as my groin healed, I began jogging. At first I could jog for only about 200 yards. I kept at it twice daily. Only once did I feel the occurrence of premature ventricular contractions, and after their occurrence I was very careful not to push myself to that point.

After getting to the stage where I could jog comfortably for a half mile, I wanted to find out what speed I had retained through the years and thought myself ready to run the 50 yard sprint. I was hoping and half expecting to get a time close to 6 seconds. Much to my disappointment, I got 7.4 seconds. I then realized that I would have to develop leg muscle strength in addition to building up exercise tolerance if I were to become competitive.

I had planned to consult the Auburn track coach and athletic trainer prior to beginning any sprinting activity but just never got around to doing so. I continued running and began a rather extensive weight lifting exercise program.

After some 4 months, my weight had dropped from 225 to 190, my waist measurement from 42 to 32. My blood sugars and lipids were low normal, and there had been a surprising rise in the high-density cholesterol percentage. I could run 2 miles comfortably between 13 and 14 minutes, and I felt better than I had in over 30 years.

I cannot be persuaded that some type of myocardial stress exercise program will not improve myocardial circulation and function and prolong life. It should probably be started at the age of 25 and continued throughout life. The improvement in one's subjective feelings alone is worth it.

In my contemplated competitive athletic adventure, I did not wish to simply compete but hoped to break records. I planned to run in all the sprint events from the 400 meter down, as well as the hurdles and high and broad jumps. Realizing that muscle development in a 65 year old progresses at a snail's pace compared to that of a 20 year old, I was really concentrating on the quadriceps and extensor leg muscle exercises.

While performing the quadriceps exercises and after increasing the weight to 50 lbs., I began to get discomfort in the left lower vastus medialis region. Although this portion of the quadriceps would be the lease likely part to develop strain, I assumed it only strain and continued.

Soon I developed considerable swelling and actual hematoma formation. This forced an abrupt through temporary stop in all my athletic activity. I should have realized that too much weight was being used, that often the edge of the exercise table was too far above the flexion crease of the knee, and had insufficient padding allowing for gradual tear of the musculotendinous portion of the vastus medialis.

After approximately three weeks, and certainly before sufficient healing had occurred, I resumed jogging. Then some three or four weeks later I thought myself ready to get timed in the 400 meter sprint. I planned on starting at a competitive pace and to run at a slower

*Dr. Phillippi, of Brewton, is a past President of MASA

pace for the last 100 meters or so; however, I found myself closing at a considerably faster speed than I had started.

Some 50 yards or so from the tape I developed acute pain with stiffening of the injured area, and I closed with speed little more than a jog. With this I was clocked at 66 seconds with 60 seconds being the world record for my age group.

I had to have help in getting to my car. On getting home my wife, who had been nagging me and telling me that I was overdoing it, then replied, "Now you have conditioned yourself into a cripple." I still have an area of tenderness and enlargement with calcification. This condition, even when fully healed, will interfere with my contemplated activity.

While our new home was being built I hired six young laborers and did extensive repair work on a large barn, cleared out the wooded area about the home site, constructed rail fences, planted game food plots and other type work. I was really doing more work than any of my men and still running and doing the exercises twice daily before daylight and at night.

In helping my men lift extremely heavy large 10''x10'' old, hand-hewn heart longleaf pine beams, I developed acute pain in the region of the left sacroiliac joint. Conning myself into thinking this only ligamentous strain, and I doubt if there is such a thing as ligamentous strain in the lower back unassociated with a defect such as spondylolisthesis, I simply got a back corset and continued working.

The condition continued to be bothersome and to aggravate at intervals. Then after some four weeks and while foolishly again helping men lift the heavy beems I once more experienced the acute pain. by the next morning I could barely turn over in bed, and there was radiating pain down to the level of the ankle.

Only then did I admit to myself that I had developed a disc problem. My wife came and took me back to Brewton. She wanted to call a physician to see me, but I refused stating that I would simply go to bed until I got well. After about 10 days with no real improvement, she tired of my subbornness and got medical consultation. The physician she called felt under my mattress and asked, "Where is the plywood?" I replied, "Well, It's up in the attic."

After having the plywood in place I was surprised to learn what a difference it made. Although one keeps a patient on strict bed rest in the "disc position" and has him perform Williams stretching exercises, good results are not obtained without plywood under the mattress. In my case it was ridiculous.

In handling numerous cases of disc syndromes in giving instructions as to the type of bedrest desired when the patient would begin to describe what a good firm mattress he had, I would promptly interrupt telling him that if he did not get the plywood there would be no point in my pursuing treatment.

Had a patient consulted me at the onset of a similar back problem, I would have insisted on prompt and adequate treatment. I would have kept him in bed until all physical signs had cleared and he had become entirely asymptomatic. After this I would have allowed him to be ambulatory with a back corset, given him a back care booklet, and instructed him in detail regarding no lifting and in not getting into back straining postures. He would very likely not have been off his feet longer than a week.

At the onset I most likely had only a bulging of the fibrocartilaginous portion of the disc or perhaps a crack in it or at the most only minimal protrusion of the gelatinous nucleus. At the time of this writing I have been in bed for five weeks. The nerve root pain has subsided, I can walk without a limp or much discomfort, but still have some residual anesthesia. I will now follow medical instructions regarding my problem and am consenting for neurosurgical consultation.

For approximately eight months I had noted symptoms of prostatism. I procrastinated in getting checked , perhaps not wishing to admit the possibility of something funny being felt and with the need for the biopsy needle.

While hospitalized for coronary angiography, my prostate had not been examined. This is a good example showing the need for some primary care type physician to be also involved. Subspecialists more often than not are not concerned with anything out of their specific field.

After I had been in bed some two weeks with my disc problem, the prostatism increased and I almost went into urinary retention. Only then did I ask for medical consultation. A large solf tender prostate was felt. Appropriate therapy was begun and there was marked improvement in some three days with marked reduction in the size of the gland.

I am being sent for urological consultation. I had probably had a smoldering infection throughout the summer. Although chronic inflammation is not the cause of benign prostatic hypertrophy, one might reasonably assume that it might stimulate the development of it. I may have to submit to transurethral prostatic resection and if so this possibly could have been avoided by early proper treatment.

In retrospect and when applied to myself, these instances are prime examples of medical hypocrisy. Medical students in their clerkships here in Brewton as well as family practice residents ofter reminded me of the degree of complete control I seem to have over my patients.

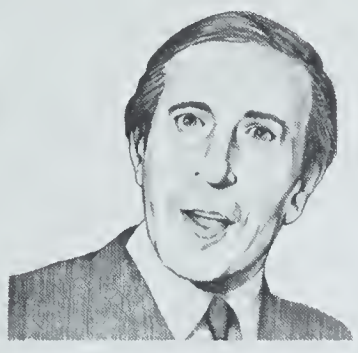
I just would not put up with halfway compliance. Yet I managed to handle myself quite differently.

The old quotation "the physician who treats himself has a fool for a patient" is certainly true. I only hope that my colleagues manage themselves differently.

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Emphasis:

PRIMARY FAMILY CARE
&
MEDICAL GENETICS

MARCH 27-28-29, 1981

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at

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GUEST FACULTY

HANS ZELLWEGER, M.D.

Special topics:

Genetics of Mental Retardation

How to Evaluate the "Floppy Baby"

New Developments in Muscular Dystrophy and Spinal Muscular Atrophies

Educated in the land of his birth, Switzerland, with medical education also in Germany and Italy, Dr. Zellweger took postgraduate training in Pathology, Microbiology, and Obstetrics after he earned his medical degree at Zurich. He has engaged in research with such figures at Professor Fanconi (Switzerland) and Dr. Albert Schweitzer (the Jungle Hospital, Lambarene, Gabon, Africa). He was Chairman of Pediatrics at the American University in Beirut, Lebanon, before going to the University of Iowa, in 1959, as Professor of Pediatrics. The chromosome laboratory and clinic for genetics and neuromuscular diseases which he early established in Iowa City were first steps toward development of the 15-clinic Regional Genetic Consultation Service of the State of Iowa, of which he became Director in 1976. His work in neuromuscular diseases, mental retardation, and other fields has gained him international recognition. As Distinguished Visiting Lecturer of the Department of Medical Genetics, USA, he will be resident in Mobile through April 1981.

THE MINI-RESIDENCY PROGRAM

(A Practicum and Intensive Exercise)

Department of Medical Genetics, The University of South Alabama, Mobile, Alabama

INTENT

To transfer to interested clinicians selected skills used in Medical Genetics for the diagnosis and prevention of hereditary disorders and birth defects and for the clinical management of affected individuals.

Special Rotations concentrate on the clinical interests and practice needs of particular specialties. Selection of Guest Faculty and design of the curricula of Special Rotations are individually tailored for the participants in a particular Mini-Residency.

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CME credits, Category 1, Physician's Recognition Award of the A.M.A. are offered through the Office of Continuing Education, The University of South Alabama. The intensive short courses embrace up to 18 hours of instruction/participation for equivalent credit hours. At least 15 working hours are standard, and a "weekend" extending from Friday through Sunday morning is customary.

CURRICULUM OUTLINE

The Guest Faculty and the Staff Physicians of the Deparment of Medical Genetics 1) give thorough coverage to general Medical Genetics, and 2) focus on genetics of primary relevance to the medical specialty of the participants. **The participants are urged to suggest topics.**

INQUIRIES INVITED

For information concerning a Mini-Residency that has been scheduled or which you would like scheduled (a minimum of 7 participants is suggested) please contact:

Wladimir Wertelecki, M.D., Chairman, Department of Medical Genetics
USA Medical Center, Mobile, Alabama 36617
(or the Mini-Residency Coordinator)

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TOLL FREE within Alabama: 1-800-672-6781, Ext. 7806
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Mrs. O. B. Carr, Jr.
President, A–MASA



A NEW EPIDEMIC IS KILLING OUR CHILDREN . . . AND EVERYONE CAN HELP IMMUNIZE THEM!

In normal day-to-day living, children are pretty sturdy. But in a car that stops suddenly or crashes in an accident, many children don't do well at all. In an automobile that is traveling at just 30 mph, a 10-pound baby will hit an object such as the dashboard or windshield with a force of 300 pounds. Older children or adults can hit with the force of a fall from a three-story building.

You are probably aware that the No. 1 killer of children in the United States is auto accidents. The use of a child restraint device can reduce fatalities by 90%. Standard seat belts cannot protect a child under 40 pounds in weight and 40 inches in height.

Abdominal organs in a child are not adequately protected by a seat belt because of under-developed hips and rib cage; the head of a young child is proportionately larger with respect to the rest of the body than that of an adult, causing greater forward whipping of the upper torso of a lap-belted child.

A child restraint, because of its construction, limits forward head movement and spreads impact forces over a wide body area so that no one part bears undue force.

You, as a physician can encourage the purchase of a child restraint device before the birth of a child. Hospital personnel can advise the new parents of the importance of having baby's first ride be a safe one through the use of a restraint device. At check-up time the physician or nurse can stress the importance of the use of the restraint device every time the child rides in a car.

Once parents use the child restraint device, they find other advantages. The child is better behaved. Children who ride in restraining devices cannot fall out of car doors or interfere with the driver. Most parents strive to be good parents; the habit of letting a child ride loose has been called the "neglected child syndrome."

Recently the American Academy of Pediatrics announced a campaign to combat the leading child killer. Car accidents are the number one preventable cause of death for children from birth onward, the Academy said. Each year, nearly 1,000 children between birth and age 5 are killed in car crashes, and 60,000 are injured, some permanently crippled.

Pediatricians are seeking the protection of babies and children by alerting their parents to the life-or-death value of infant and child safety seats and working with hospitals to urge parents to make their baby's First Ride . . . A Safe Ride.

Dr. James Holroyd, of La Canada, California, Chairman of the Academy's Committee on Accident and Poison Prevention stated, "More children die each year as a result of car crashes than do from polio, diptheria, rubella, mumps, and measles.

Auxilians throughout Alabama are becoming more aware of the great need for infant/child safety programs in our communities. Some county Auxilians are helping to establish programs offering educational materials to parents of infants and children hospitalized. Child restraint devices are being collected and made available for parents at nominal fees to encourage use.

Dr. Don Palmer, Alabama Pediatrics Association Chairman of Accident and Poison Prevention, was the guest speaker at the A-Masa Winter Board Meeting recently in Sylacauga. Dr. Palmer strongly stated that all children can be immunized against this preventable disease. "The Vaccine to combat infant and child car deaths in Alabama is the proper use of safety seats and seat belts," he stated.

Auxilians pledged their support to the physicians of Alabama for this needed program. What's going on in your county to promote infant and child safety? Should you be involved? You could be the catalyst your community needs to promote this life saving program!

The Bureau of Primary Prevention, Department of Public Health, under the direction of Mr. Jim McVay is

President-elect, Mrs. Rufus Lee; First Vice-President, Mrs. Robert Estock; District Vice-Presidents: NW, Mrs. Robert Rhyne; NE, Mrs. Andrew Brown; SW, Mrs. John Taylor; SE, Mrs. William Lazenby; Recording Secretary, Mrs. Ralph Braund; Treasurer, Mrs. Lamar Thomas.

very aware of the need for a sound program in infant and child safety in Alabama. Resource materials such as pamphlets for your office, coloring books, posters, video cassettes, slides and film strips are available for use in your community.

An Infant and Child Safety Committee has been formed by Mr. McVay representing various agencies in the state concerned with the positive promoting of this much needed program in Alabama. The Auxiliary is represented on this committee by a national chairman, state chairman, county president and myself as state president.

If someone the parents trust, especially a health professional, points out the need for a child to be buckled in a child restraint device, there is a greater chance the parents will follow the advice. Then perhaps the next time you see your little patient, it will probably be at check-up time rather than in the hospital emergency room.

Mary

*News Release, American Academy of Pediatrics, November 14, 1980.
*Isn't It Time You Used A Little Restraint, A New Epidemic is Killing Our Children; Prepared by the Alabama Department of Public Health.

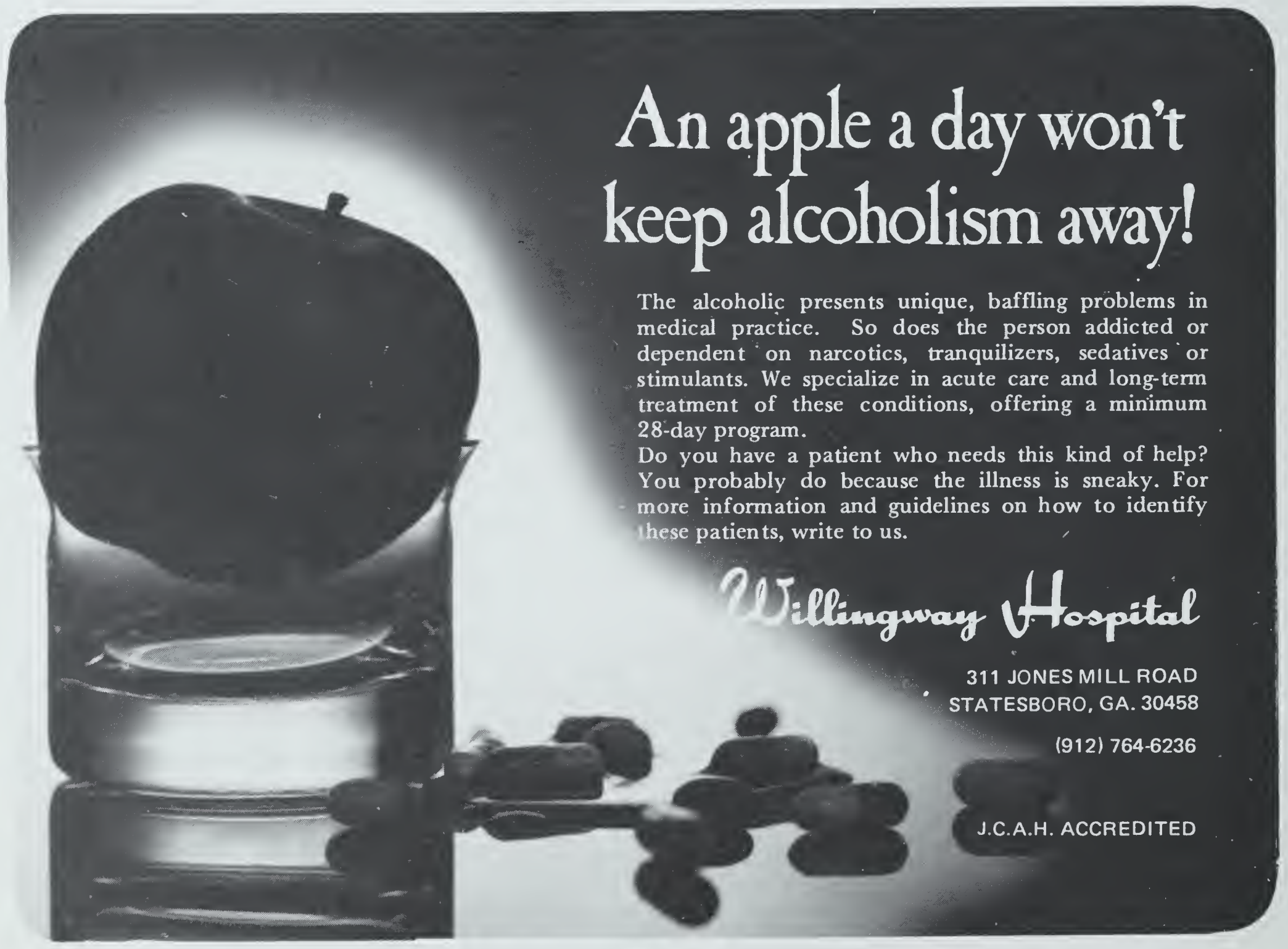
Infant Death Syndrome—*Continued from page 35*

meanings associated with the loss of a child were discussed. These are issues that must often be brought up by the physician for discussion as a part of facilitating the normal grief reaction.

The short-term therapeutic goal is reestablishment of the pre-existing level of family function. The time framework may be as long as a year to eighteen months. The techniques are predominately supportive initially, and increasingly educational as the parents are able to hear and use what is being said.

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For recurrent attacks of urinary tract infection in women

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Just one tablet b.i.d. for 10 to 14 days

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- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
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- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Please see back cover.

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Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

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VOL. 50, NO. 9, MARCH, 1981

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Annual Session Issue

Nurse Practitioner Debate
Page 11

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/Roche)Ⓥ, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium®(IV)
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

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Manuscripts should be typewritten, double spaced on white paper 8½x11 inches with adequate margins. The original copy, not the carbon copy, should be submitted. Authority for approval of all contributions rests with the Editor. *The Journal of The Medical Association of The State of Alabama* reserves the right to edit any material submitted. The publishers accept no responsibility for opinions expressed by contributors.

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The *Stylebook/Editorial Manual,* published by the AMA, is the general reference for questions of style. It is particularly useful in the proper presentation of data. Available at cost ($6.50) from MASA. When conflicts occur between usage, etc., by an author and the stylebook, these will be resolved in favor of the author if his method is persuasive and logical.

Helpful to many writers is *The Elements of Style* by William Strunk Jr. and E. B. White, which emphasizes brevity, vigor and clarity. Available at cost ($1.65) from MASA.

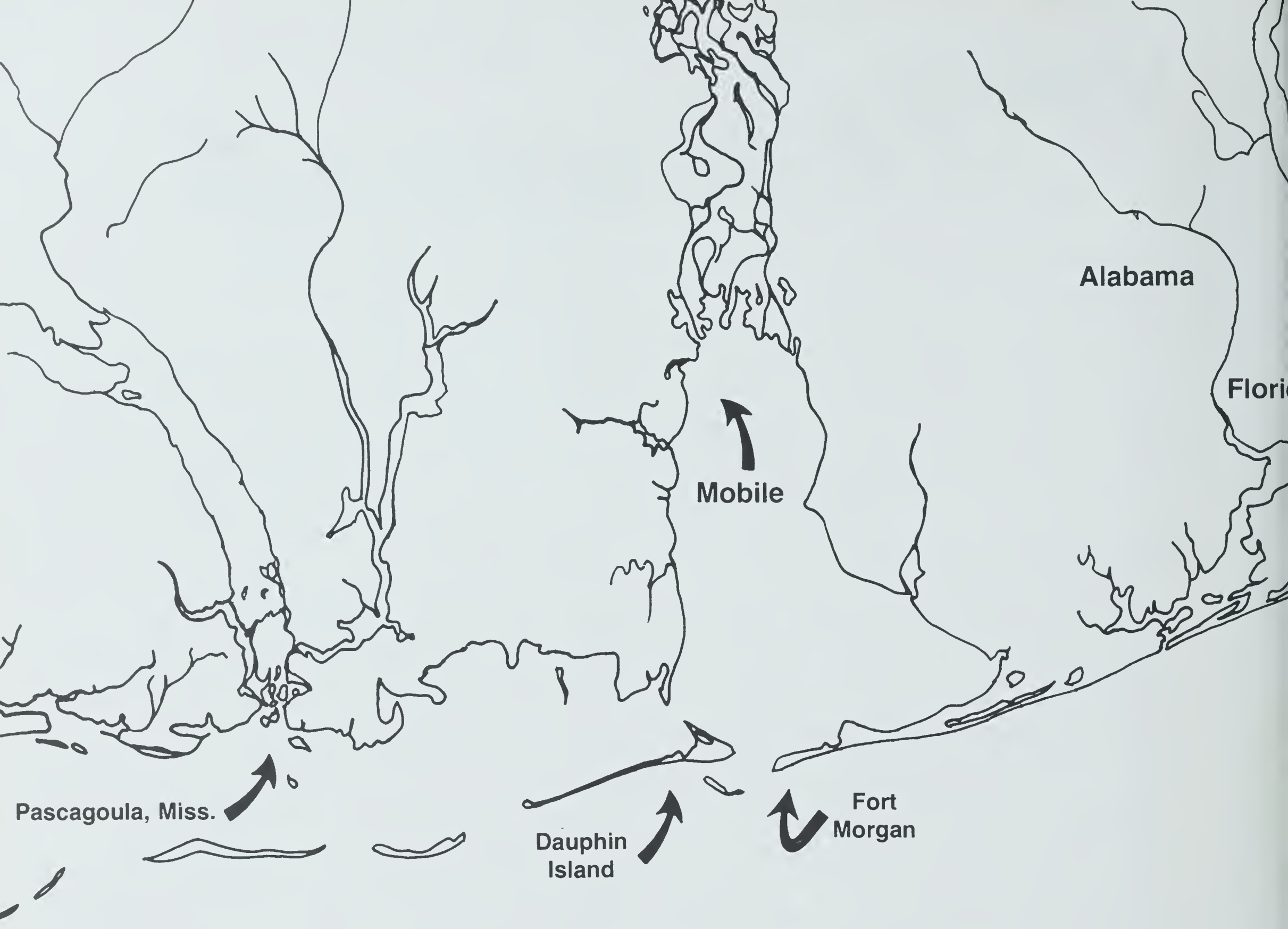
Final authority on grammar is Webster's *New International,* Unabridged, Second Edition.

Copy Changes: When an author receives a galley proof back from MASA, he is expected to make corrections only. Copy changes, alterations on proof from the original manuscript, are expensive. Please try to say what you mean in the original.

Length of Articles: Articles should not exceed 3,000 words (approximately 3-4 printed pages). Under exceptional circumstances only will articles of more than 4,000 words be published.

Illustrations: Illustrations should be numbered consecutively and indicated in the text. The number, indication of the top, and the author's name should be attached to the back of each illustration. Legend should be typed, numbered, and attached to each illustration. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. For half tones, glossy photographs should be submitted.

Reprints: Reprint orders should be returned at once. Prices for reprints, based on number of pages, will be furnished upon request. Communications should be addressed to *The Journal of The Medical Association of The State of Alabama,* P.O. Box 1900-C, Montgomery, Alabama 36104. Telephone 263-6441, Area Code 205.



The Cover

If the founders of Mobile had had before them this Landsat satellite view of the area, their troubles might have been fewer—as indeed would have been the problems of all early discoverers, most of whom had to rely on maps that were as much superstition and ignorance as knowledge.

Even so, these early explorers easily saw the strategic New World importance of Mobile Bay, so evident in this space age view, supplied to MASA by the Eros Data Center, U.S. Geological Survey, Sioux Falls, South Dakota. The Perdido River on the East marks the division of Alabama and Florida; on the West, the Mississippi-Alabama division is by arbitrary survey line.

If the natural harborage the bay was an attraction to foreign shipping, it was also an open invitation to epidemics from over the seas. This historical fact had much to do with shaping the origins of the Medical Society of Mobile, and the Medical Association of the State of Alabama, with its unique sense of responsibility for public health.

JOURNAL

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Repeal the Health Planning Law

To give the proponents of the 1974 Health Planning and Resources Development Act (PL 93-641) more credit for sincerity and rectitude than they may be due, let me begin this with these assumptions:

- That the law was sponsored and enacted out of genuine desire to control the rising costs of medical care and insure better distribution of resources;
- That proponents in the federal bureaucracy who advocated it really did want to involve consumers in the decision-making process;
- And that the claims that the measure insured states rights and local control were honest at the time they were made.

If these assumptions were true, and I am assuming they were for the sake of argument, then the whole concept was a disaster. The intent of Congress was perverted by the bureaucracy, and almost the precise opposite to the above has come to be the law of the land through federal regulation, command & control.

I believe the record will show that the Health Systems Agencies established under the act are largely puppets, controlled by or manipulated by staff, which is beholden not to the public but to Washington, which is always governed first by empire-building.

I believe the record will further show that staff, so far from being sympathetic to consumers, were motivated more by the desire to wreak vengeance against what they perceived to be the privileged class of physicians. And I think the facts attest to the clear Nader-esque proclivities of staff to always fault the "Establishment" and to consider it the enemy.

In short, I think the evidence is clear that there never was any desire, or willingness, to permit an informed consumer group to make autonomous decisions, but that from the very outset the plan had been to orchestrate these in a manner that would do the bidding of the hidden persuaders in Washington—the bureaucratic theoreticians intent on socializing medicine through the back door.

I think it has been established that the Washington planners expected the consumer groups merely to rubber-stamp federal dispensations on what was best for the people, and that this same Potomac expectation was perceived as the proper rate of the Statewide Health Coordinating Council (SHCC) and the State Health Planning and Development Agency (SHPDA).

When the State Committee of Public Health, which had been serving as the SHPDA, seemed to be of a more independent mind than Washington desired, it was summarily axed in 1979.

Washington would brook no dissent. It was pulling the strings and appeared to want nothing more and nothing less than that the states merely go through the motions of local control, to satisfy the intent of Congress.

But even if my beliefs are totally wrong and the assumptions stated at the outset totally right, the fact remains that health planning has had no significant impact on the cost of health care or the allocation of resources. On the contrary, there is more than a little evidence that health planning has actually exacerbated the situation.

The Reagan Administration has indicated it intends to let health planning wither on the vine in 1981 and be cut off from all funds by 1983. This would, however, still leave 93-641 on the books, a cocked pistol.

MASA and the AMA support outright repeal, in the belief that the intent of the law has been violated, that it is unworkable at best and a dangerous centralization of power at worst.



S. Lon Conner

PRESIDENT'S PAGE



C. A. Lightcap, M. D.
President

WELCOME TO MOBILE SEAFOOD

Sometimes visitors to Mobile ask how this old city knows so well how to cook seafood in such tantalizing ways.

Since seafood is a major part of the splendid spread that will be set before you at Thursday night, April 23, reception, hosted by the Medical Society of Mobile County at the annual session, I think the best answer to that is similar to the one the British are said to give when visitors ask how they develop those beautiful lawns.

The English, I am told, respond to that frequent inquiry something like this: You just tend them for several hundred years.

Well, Mobile has been preparing seafood since the founders arrived in 1701-02. And with almost three centuries of practice, using the resources at our doorstep, we have picked up a few tricks here and there.

Bayley's catering service, which will serve up the victuals at the Thursday night function in the historic Fort Conde restoration, will spread before you boiled and fried shrimp, oysters (fried and on the half shell) crab claws, scallops, fish filets, plus chicken, frog legs, etc., and all the fixings, relishes, salads, sauces, etc.

I promise those who join us Thursday night you will be asking how in the world these delicious dishes were prepared. And when somebody tells you that you must first practice 275 years or so, remember you read it first here.

C. A. Lightcap, M.D.

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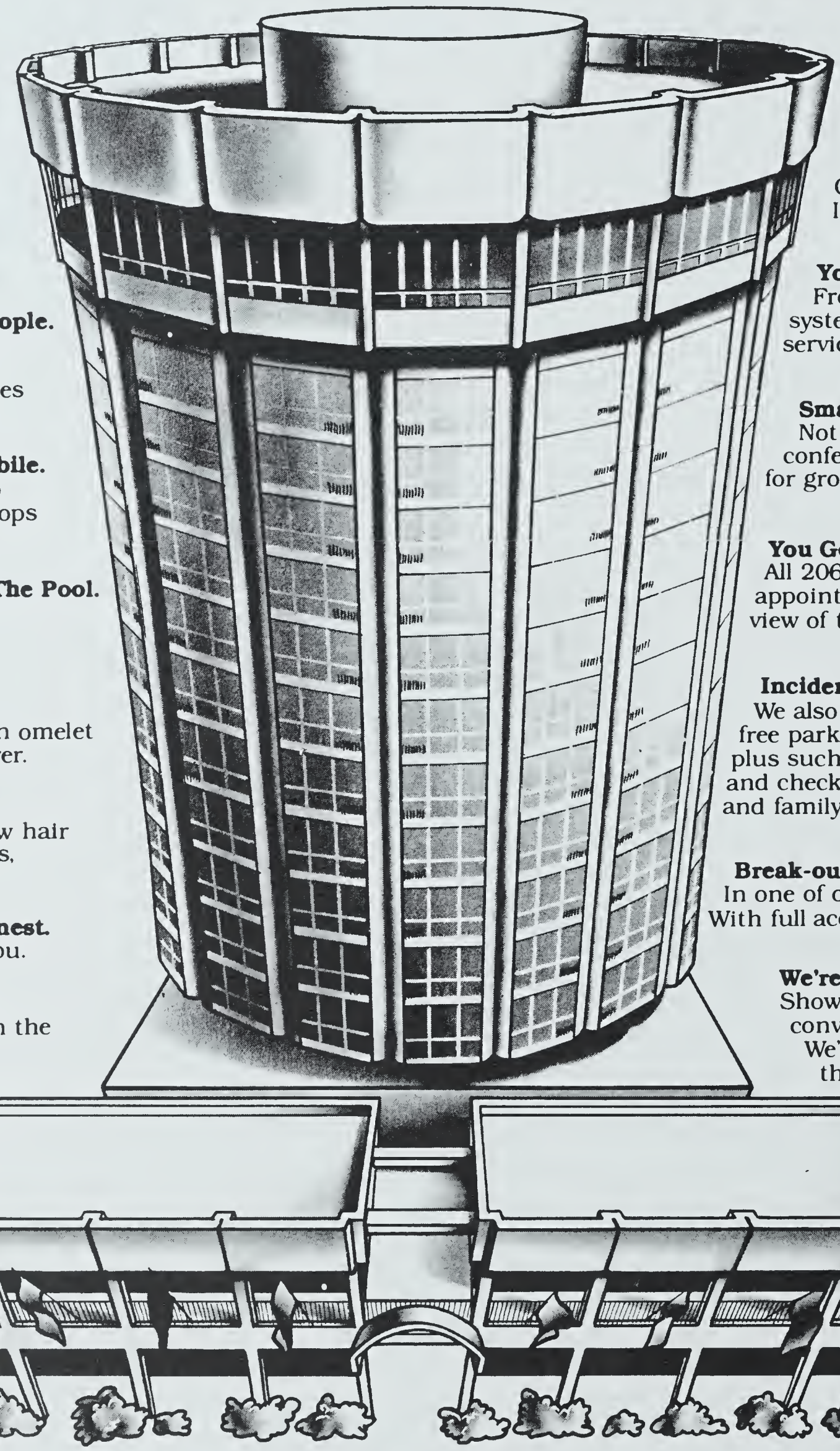
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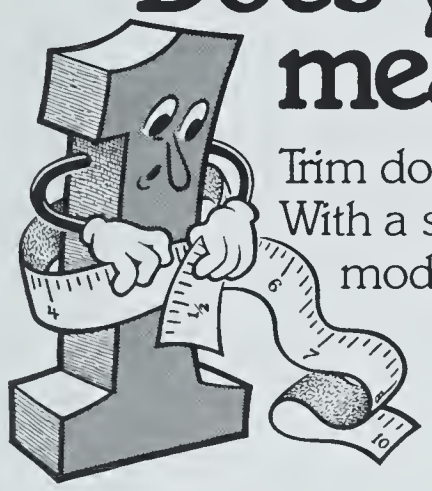
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7 ways to feel good and live longer

1 Does your figure measure up?



Trim down your excess weight. With a sensible diet. And regular, moderate exercise.

2 What's for breakfast?



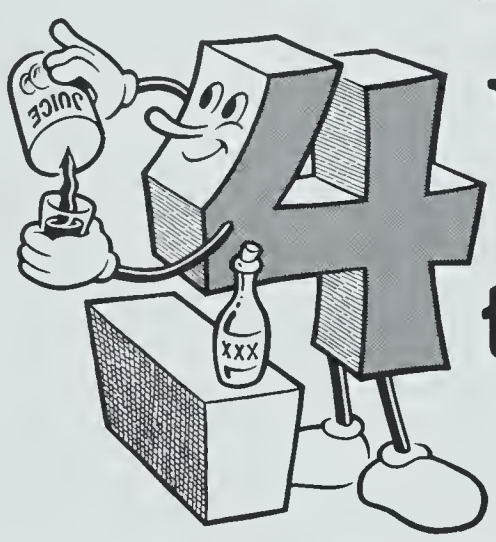
It's the most important meal of the day. Don't miss it.

3 Do you work on balanced meals?



Your body needs three squares a day, balanced from the four food groups.

4 Where do you draw the line?



If you drink, stop. Or at least cut back. Studies show that people who don't drink or drink only in moderation live longer.

5 Have you kicked the habit yet?



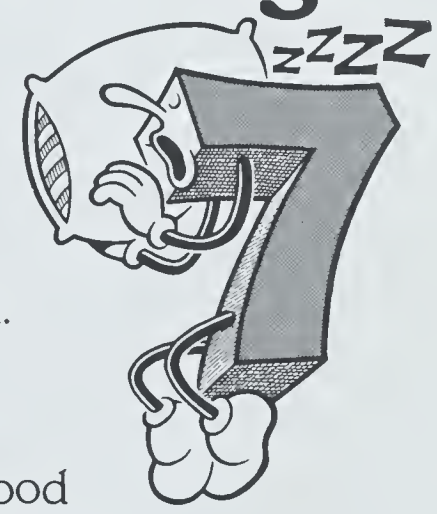
Smoking greatly increases your chances of cancer, heart disease and emphysema. Stop while you're ahead.

6 Are you skipping exercise?



Don't. Moderate exercise about three times a week can make you feel better.

7 Do you get enough shuteye?



Most people do need seven to eight hours a night. Give body and mind the rest they need.

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LETTERS

SENATOR KENNEDY'S EXPERTS

Editor, The Journal

I was very interested to read Dr. Pittman's remarks concerning the origin of the medical manpower bill and, in particular, the involvement and description of Dr. Bryan Biles, who was intimately involved with Senator Edward Kennedy's bill.

In March of 1953, I represented a foundation for medical care at a meeting of the American Association of Foundations for Medical Care at the Greenbriar. There were nine participants in a panel discussion on the future of medical practice. They were the medical advisors of a number of congressional committees.

Bryan Biles, M.D., age 26, was the physician advisor to the Senate Finance Committee. After hearing his remarks, I investigated Dr. Biles' background and experience. He had been an intern in the Public Health Service. He and six other physicians advisors had never treated a patient.

The most logical presentation of the morning was by a 31-year-old physician who had served residency in the Public Health Service and actually had practiced clinical medicine.

The message that came from this panel presentation was ominous, not only for its content but its genesis. It was obvious to me that health policy was being formulated by people with no experience of any useful kind and whose recommendations to their respective committees were merely reflections of the political personalities of those by whom they were employed. In other words, Dr. Biles was being used by Senator Kennedy to give a "touch of authenticity" to his bizarre proposals.

Furthermore, these nine young and idealistic physicians seem to have their remarks of virtually orchestrated by Mr. Jay Constantine, who has been frequently referred to as HEW's "Czar of Medicine". Mr. Constantine's desire to run medical practice in this country was being implemented on a fragmentary basis by each of these medical advisors and their respective congressional committees.

As subsequent events have shown, the unremitting pressure from HEW has produced a medical policy with little connection to real problems, fragmented among multiplied agencies and fraught with political infighting among the government agencies involved.

Those youthful medical advisors are undoubtedly more experienced today than they were in 1973, but not with a helpful kind of experience that might, in this enlightened time, produce benefits for the nation.

David M. Connelly, M.D., F.A.C.S.
Montgomery

WHICH DEAN?

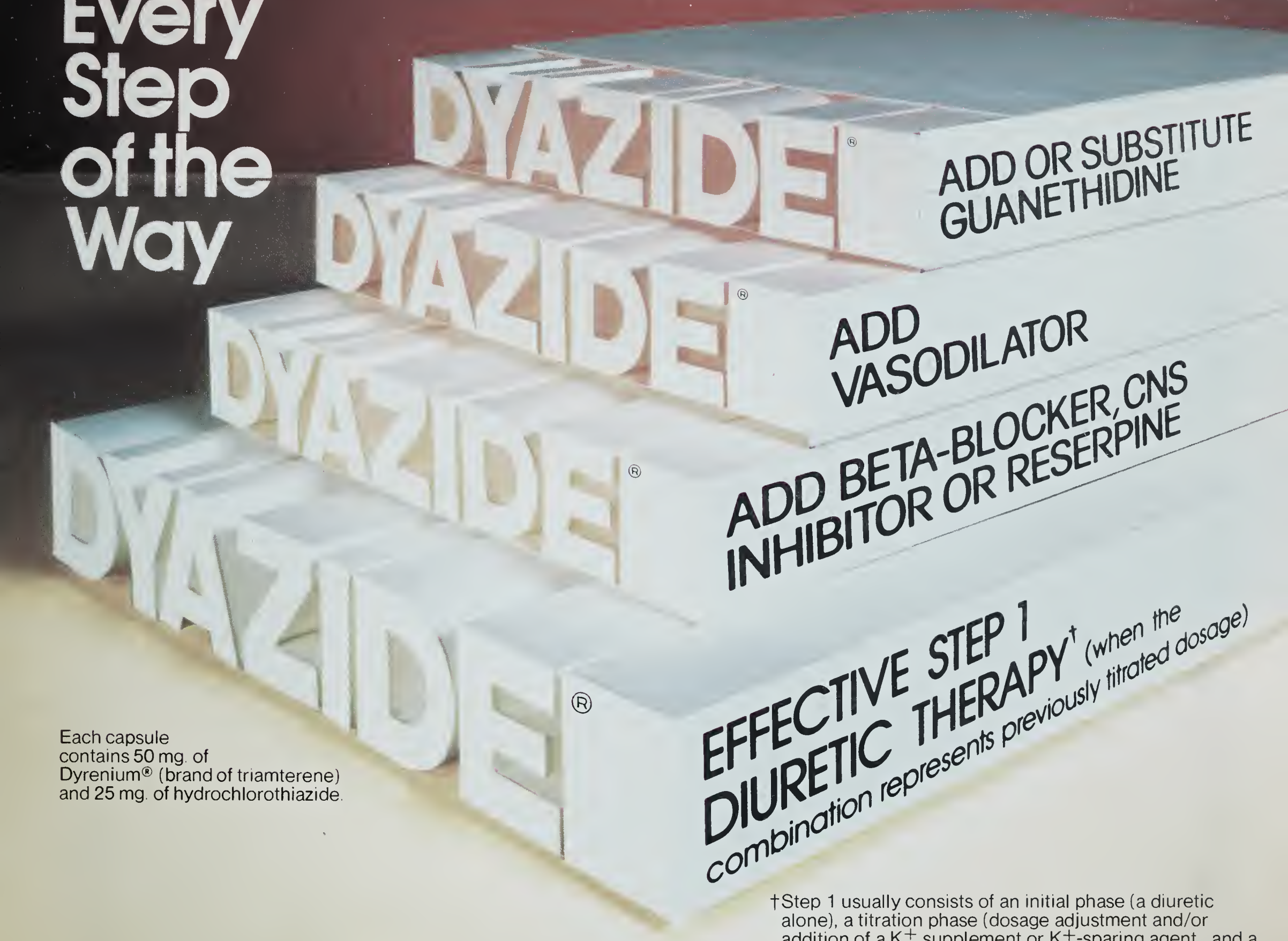
Regarding the letter from a Dr. Pittman concerning the doctor surplus (Jan. Journal), I noted that he ended with "through the extremely careful planning and the unbelievably wise and perspicacious foresight of the Dean of the Medical School, Alabama is doing its job to absolute perfection!"

Dr. Pittman failed to mention which Medical School Dean of whom he was speaking.

Robert O. Harris III, M.D.
Mobile, Alabama

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Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in postsympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

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Colleges shouldn't have to choose between lighting their buildings and enlightening their students.

—Thomas Edison
Inventor

There's nothing more frustrating for a scientist than to be on the verge of a great discovery and not be able to afford the equipment he needs. I know.

When I was a boy, I had to work overtime to get the money I needed for equipment. But somehow I eventually got what I had to have for my experiments.

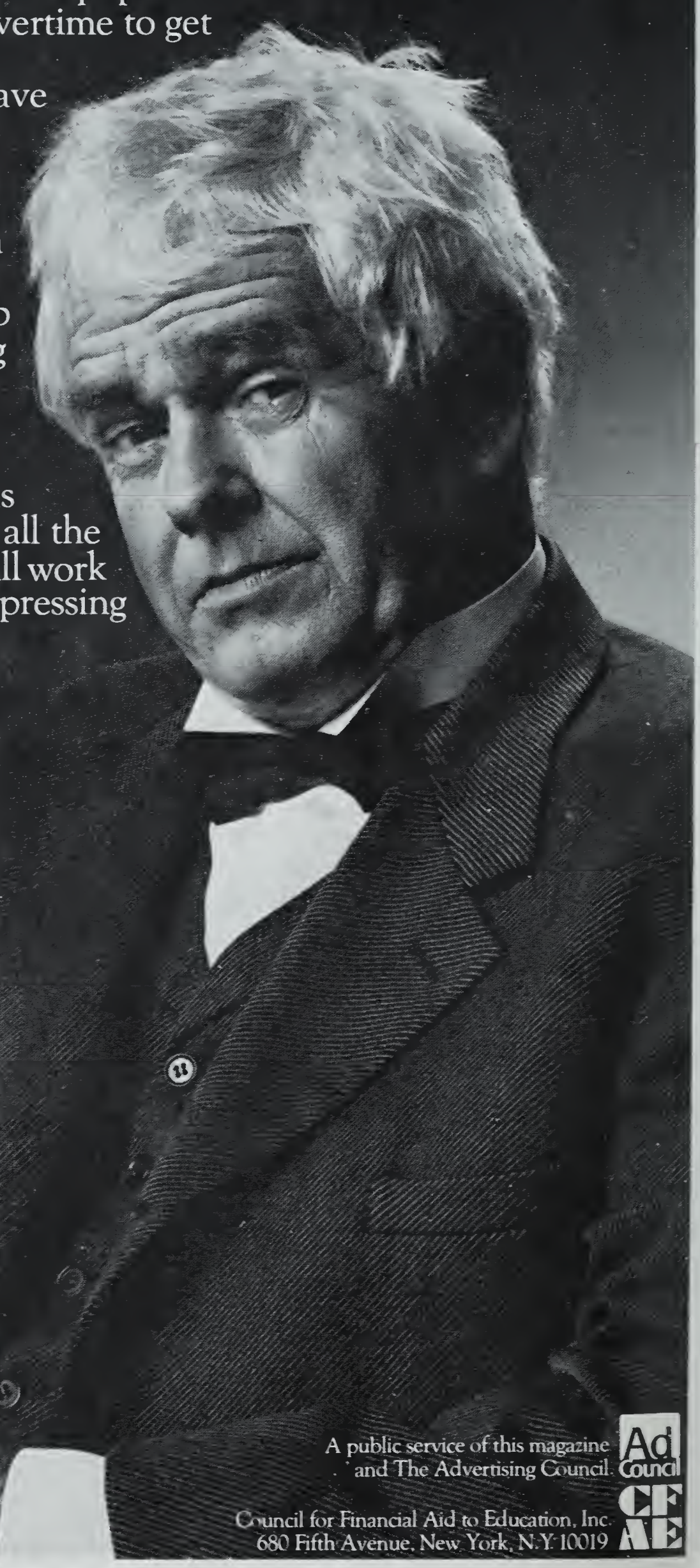
Today there's a real danger that many American college students may not. Inflation is eating into college budgets to a dangerous degree. More and more of the money that used to go for microscopes, lab equipment and library books is now being consumed by basic necessities such as heating and maintenance. And, of course, my specialty – lighting .

What is most frightening is that this squeeze is coming at a time when we need all the trained minds we can get. So that we can all work more effectively towards the realization of pressing goals: manageable inflation, revitalized industry, and plentiful supplies of energy coursing through the arteries of this country.

With today's problems, America simply cannot afford to have second-best education. So please give generously to the college of your choice.

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Give to the college of your choice.



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THE NURSE PRACTITIONER DEBATE

by William H. McDonald



For some time the Board of Medical Examiners and the Board of Nursing have been attempting to draw up guidelines defining and delimiting the role of Nurse Practitioner.

The Board of Medical Examiners was handed the job after the fact, when nurses who called themselves practitioners had already begun to function, somewhere in the twilight zone between medical practice and nursing.

Such warrant as they may be determined to possess that would allow them to do this derives largely from two sources–the preceptors who are at least nominally their supervisors, although the degree of supervision appears to vary greatly, and the special education they contend gives them the right to call themselves nurse practitioners.

On these facing pages two Alabama physicians who have been cast as adversaries in the job of defining the NP present some of the arguments that account for the controversy.

Kenneth C. Yohn, M.D., Eufaula, is Chairman of the Credentials Committee of the Board of Medical Examiners.

Robert S. Northrup, M.D., Chairman, Department of Community Medicine, University of Alabama, Tuscaloosa, is a recognized authority on the subject.

For Nurse Practitioners, Dr. Northrup

In a talk before the MASA Leadership Conference Jan. 17, Robert S. Northrup, M.D., College of Community Health Sciences, University of Alabama, Tuscaloosa, maintained that a properly trained nurse practitioner, using protocols provided by her preceptor, could provide diagnosis and treatment "equivalent" to that of a physician in many cases.

Dr. Northrup quoted a letter he had received from a physician friend, who said that "to force lesser professionals on those living in rural or underserved areas is to offend and degrade us."

Dr. Northrup said most people in such areas, though they might prefer a physician, do not share this view. He addressed his comments to the broader questions of nurse practitioner—whether they are needed at all, whether their training is adequate, whether they can provide adequate quality of care within the preceptor limitations of practice, and whether organized medicine should support their use in this state.

The focus of his comment was the use of NPs in isolated settings, where a physician is not on site all of the time. There are some 34 clinics in the state staffed by NPs, he said. In three-fourths of these, a physician is not on the site at all times. Although there are some 200 NPs giving Alabama as their address, he confined his remarks principally to about three dozen of them now working in isolated federally funded rural health initiative projects.

Are they and others like them needed? Dr. Northrup repeated the familiar litany of Alabama's ranking as a medically deficient state. "In terms of care provided by doctors, there is no doubt in my mind that we do have a need for more medical manpower in our rural counties," he said.

Alabama ranks 47th in per capita number of physicians to population among the 50 states and the District of Columbia, he said. It ranks at the bottom in ratios of medical specialties and other health professionals.



Dr. Northrup

Twenty-seven of the state's counties (1978 data) have physician/population ratios less than 1 per 2,500 people. In four of these counties, the ratio is less than 1 per 5,000.

In terms of primary care providers, Dr. Northrup said, the nationally acceptable figure is considered more than 1 per 2,000 population. Alabama has only seven counties with that ratio or better, and most of these are metropolitan. There are 29 counties with 2,000 to 3,500 people per physician, and 31 counties with more than 3,500 per primary care provider.

Having stated the cold figures, Dr. Northrup proceeded to translate these into the health problems he concluded to be related to inadequate primary care for many of the state's counties:

Fetal mortality rate is highest, generally, in those areas where primary care ratios are lowest. A similar inverse relationship exists in the incidence of cardio-cerebral-vascular disease, he said, commenting: "I would like to suggest that this data shows the relationship of particular health problems with the availability of primary care, although I'm not saying that it proves it."

Also pointing to the primary care need, Dr. Northrup continued, is the fruitless search by many communities for a physician. In time, he said, the medical education system may meet this need, but many areas, particularly isolated ones, will not be supplied with physicians.

It is in these, particularly, that nurse practitioners have been proven most effective under federally funded rural health initiative programs. Most of these communities would prefer a physician but are delighted with an NP.

Dr. Northrup–Nurse Practitioners are needed in isolated areas. They can provide equivalent diagnosis and treatment to that of MDs.

An NP, Dr. Northrup said, must first be a nurse. Before she is accepted in the nurse Practitioner Program at UAB, she must have a baccalaureate degree in nursing and two years experience. These programs differentiate between the NP and the nurse particularly in that "they allow the nurse to add diagnosis and treatment to her activities."

NP programs across the U.S. vary considerably in length, all the way from three months to more than 20 months of special study. The national average for certificate program is 8.4 months, he said, whereas the average for master's programs is 15.3 months. As with basic nurse education, the NP programs must meet federal guidelines and are accredited by a committee of the American Nursing Association, "which performs as the LCME does for medical education."

Dr. Northrup admitted to some concerns about the adequacy of the certificate program, but said the UAB program was excellent.

"Not all are like that, however. I believe that we need definite mechanisms in the state to review the nature of education programs for nurse practitioners to insure that they meet minimum acceptable standards."

Dr. Northrup said that, beyond NP education, the most critical factor is protocols—"the agreement, preferably written, between the NP and her MD supervisor." It must precisely define criteria for diagnosis and indications for treatment, or for seeking advice from the preceptor.

"The protocol both sets limits and defines processes of management and deserves most of our attention. Just as clear orders on the chart will insure proper treatment of our patients on the ward, so may clear and well defined protocols, I believe, guarantee safe care of high quality by a nurse practitioner."

Unfortunately, however, there is considerable variance in protocols and many physicians have had little experience in preparing them, he said. Thus the result can be less than satisfactory at times.

The algorithm method is in use in many underdeveloped countries, Dr. Northrup said; he seems to consider it the preferable approach. It is not possible to take protocols from anywhere and apply them to a local situation. Physicians preparing them must know the epidemiology of diseases in a given area and the statistical likelihood that a particular set of symptoms means a certain diagnosis in that area. But "protocol production is a difficult and complex process. . . ." It is important that the doctor and the NP know exactly what it meant, that the doctor frequently observe the NP in action, that he discuss cases with her and see the patients himself on occasion.

"While some states have passed laws permitting independent or solo nurse practitioner practice," he said,

"I see no strong reason why we in Alabama want or need this."

Dr. Northrup cited a study of parallel examination of some 280 conditions in children by a pediatric NP and a pediatrician. In 239 of the situations, the agreement between the two was total. In 39 cases there was disagreement but this was not judged to be significant. However, in two cases cited, the NP missed a case of pneumonia and another of meningitis.

"I believe these exceptions prove the rule," he said, "that a pediatric NP can be highly dependable in performing a physical examination and making an acceptable chart."

Dr. Yohn Responds

Kenneth C. Yohn, M.D., Chairman of the Credentials Committee, Alabama Board of Medical Examiners, was interviewed in his Eufaula office, between patient visits, on Feb. 2.

Interviewer: "Dr. Yohn, where did nurse practitioners come from? More to the point, what does the term mean?"

Dr. Yohn: "All the other health care professionals were left in considerable doubt as to just what the term meant at the outset. There is still a lot of confusion and misunderstanding about it. There are probably several reasons for this. I think the primary reason is that they were trained and placed in position without those in positions of responsibility in other fields knowing about them. But I don't know where the term came from or who originated it."

The Health Systems Agencies, Dr. Yohn continued, were well aware of NP's, apparently, and more than eager to use their existence for health initiative funds with very little physician coverage or responsibility. Dr. Yohn continued:

"I think we got nurse practitioners in the state the same way we got physicians' assistants. There were federal grants available for academic institutions to obtain for the purpose of training these people. I'm not at all sure the academic institutions knew who or what they were training. Just as they did not know with physicians' assistants, Medex and surgeons assistants in the past. I think they really did not know what sort of personnel the nurse practitioner was intended to be."

Dr. Yohn–It is more cost-effective and better medicine to transport patients by vans, using highways we already have to the doctor or the hospital.

Thus it was left for the Board of Medical Examiners to define, after the fact, what a nurse practitioner is. Is she a nurse or a practitioner, and if closer to the second than the first, as proponents of NPs seem to maintain, how can she escape the legal sanctions against the practice of medicine?

She does this, according to critics more hostile than Dr. Yohn, by a reduction to the absurd of the classic nurse's role of carrying out the doctors' orders. The orders become protocols, or standing orders for diagnosis and treatment, which serve as a kind of sublicense from her preceptor. Some critics say she thus uses his license to practice medicine.

As the time and distance between NP and her MD preceptor are lengthened, the protocol umbilical becomes largely a fiction, some critics say, a mere emblem, or amulet, that protects the wearer from legal action.

Dr. Northrup said at the Jan. 17 Leadership Conference in Montgomery that there is no intent by the nursing profession, or by the teaching institutions, to create "junior doctors." Some doctors responded that this is exactly what the movement is all about.

Dr. Yohn is much more diplomatic and reasonable. But he does question several facets of the educational preparation of NPs, recognizing that some programs are wholly inadequate, aimed at creating "90-day wonders, or worse," while others lead to a level of care that is certainly beyond that of most registered nurses. Yet even the most advanced training falls far short of the kind of medical practice some NP proponents obviously favor.



Dr. Yohn

Some of the programs that have come to his attention are only 50 and 60 days in length, Dr. Yohn says, and others attempt to add this brief training to earlier nurse training that was itself less than adequate perhaps.

Question: "Dr. Yohn, what of the charge that these people are being made into Junior Doctors?"

Dr. Yohn: "You could take that view that if they are out in their own clinic and they're seeing patients with symptoms or illness presenting *de novo* and there is no control over where the patient comes from or in what circumstances.

"They obviously can't control that. If they have a clinic that's held out to be some sort of medical clinic, open to the public for diagnosis and treatment purposes, then there will be people to utilize it. That would be true here in town or at the crossroads. There are some areas that are particularly susceptible to this sort of clinic setting.

"And I do not use 'susceptible' in a derogatory sense, because in some of these areas, people are appreciative of any sort of care, any attention, they can get. Certainly it's easier to drive to the crossroad clinic than to drive 10 miles into town."

Then what is the answer for people in isolated, remote areas, without adequate transportation? If their needs are not presently being met, as Dr. Northrup says, then what can be done to provide them access to traditional medical care?

Dr. Yohn believes that the most cost-effective way of providing the very best care for such people is by using the state's highway network. Vans could be used on a regularly scheduled basis to shuttle patients to doctor's offices, which are never very far away by good roads. In emergencies, the present network of well equipped ambulances could be used to bring them to doctors' offices or to the hospital. In extreme emergencies, air service—helicopter and fixed wing—can usually be arranged.

That way, Dr. Yohn says, we could make use of a transportation system already in place to deliver patients to "a competent, qualified, licensed, practicing physician who has the paramedical personnel there to help him evaluate and treat these people—and, more important, to make sure then that they are in the medical system.

"The physician takes on a pretty good moral and legal responsibility—moral, ethical and legal—for that patient when he treats him. I'm sure that 90% of our physicians are going to be on call or have a call arrangement with another licensed physician, 24 hours a day, in case the condition worsens.

"I would prefer to see money spent to utilize the highways that we have already spent money building. This is already being done in a lot of areas—vans run from little outlying communities and towns. Many of the communities around South Alabama already have some of these available. To my mind, it would be a lot more efficient to meet these people in the proper area for treatment rather than try to bring questionable services to them—whether a fly-by-night or whatever, gobbling up federal dollars in the form of grants, and run so much less efficiently than the existing clinics and hospitals.

"In the case of very sick people, they're going to have to be transported anyhow. There always has to be an arrangement for getting the patient to the doctor, whether it's in combat or in South Alabama. It's normally easier to get the sick person to the hospital than it is to try to do the reverse."

Question: What about the NP training that is supposed to prepare students to make diagnoses based on protocols?

Dr. Yohn: "I don't believe a person trained for a short period of time—certainly not 90 days—is capable of evaluating human pathology. I think you can train a lot of individuals to take routine histories and do physical examinations. In fact, a lot of it can probably be done by machine. A lot of it *IS* being done by machine."

Dr. Yohn then described a computerized machine for both taking and analyzing EKGs, a self-contained acquisition and analysis computer. He had seen the booklet describing the programming of the computer. Since the programming of a machine is only another form of protocol, Dr. Yohn discussed this at some length:

"This beautiful little machine can be rolled right up to the patient's bedside and can do its job in 1½ minutes. The booklet describes all the criteria that have to be programmed into the computer to be able to read certain aberrations, arrhythmias, bundle branch block, and so on.

"My comment to the hospital administrator was that I'm glad I don't have to write those criteria for that computer. I can read a right bundle branch block on an EKG but I can't tell you how many components or criteria I have to go through to do that. You might say I don't know exactly what I'm doing, or what my thought processes are.

"I couldn't put it down into the computer format. They have to know cardiography as well as cardiology and a lot of computer science and technology to be able to get a computer program that will accurately read all these aberrations on the EKG for you."

Dr. Yohn sees this riddle, how do you get a highly trained physician's thought processes reduced to cookbook criteria, as a basic issue in the protocol link between NP and preceptor:

"Maybe the people in the training institutions can do this, maybe the physicians utilizing nurse practitioners can do this, maybe they can set up A through F criteria for every imaginable presentation, every possible complication of every disease, but I can't do that.

"I'm trained to do it in my own mind. I can help somebody do that on a one-to-one basis. I love to have a direct teacher/student relationship, whichever side of

that relationship I'm on. But I cannot program a computer, or another individual interposed between me and the patient, and guarantee the results.

"I think that's the reason medical school is four years in length. Most of it, at least when I was in school, was simply tedium and detail piled on tedium and detail. I suspect they didn't expect us to retain 90%, or even 70%, of all that we learned, particularly the first two basic science years.

"But I think all this was done for training and conditioning purposes as well as education. I don't think there is any other way to prepare people for the last two years of medical school, and then a clinical residency dealing with very sick people, in all sorts of settings. I don't think there is any other way to prepare them for that other than to put them through a couple of pretty rigorous years.

"Even then, there were failures in the clinical uses of this knowledge and conditioning. Some people can handle academic bookwork but are not quite as capable when it comes to applying that on a person-to-person relationship. Particularly when that relationship is distorted, and even disfigured, by a severe disease process—an unknown disease process, in which the patient is disturbed and wants relief, physical or mental. He wants to know what it is that his body is doing to him.

"That patient deserves somebody who has been well trained in all phases of human pathology, and well trained in recognizing these processes in distorted situations. I just don't know how this ability can be short-cut or short-circuited.

"Back to this protocol business. It bothers me to think that a potential disease state can be reduced to a mimeographed sheet, substituting that for the physician who has been to school four years after college, with a few years of training after that. I have already admitted that I am not capable of doing that."

At the time of the Jan. 16-17 Leadership Conference, Dr. Yohn challenged Dr. Northrup's presentation of the success rate of NPs in the study cited (which see), noting that even if all the agreement existed between the diagnoses of the NP and the pediatrician, by Dr. Northrup's own account the NP missed two very serious presentations, which turned out to be meningitis and pneumonia.

"That still bothers me," Dr. Yohn said in his Eufaula office Feb. 2. "An error rate of 1% sounds excellent, but the missed diagnoses were meningitis and pneumonia. A busy pediatrician has a hundred patient encounters over a couple of days, and with night duty in the emergency room. Multiply that 1% by these encounters and you can see what might occur in a setting where there is no pediatrician or other physician available for confirming or helping out with the diagnosis, for initiating treatment regimen, with back-up emergency coverage should the situation worsen.

"The health 'clinic' that holds itself out as offering comprehensive 'health care,' as opposed to medical care and medical practice, does not offer around-the clock emergency service. And it is not necessarily offering patients an advantage. It may in fact be offering them false reassurance.

"I can see a role for physician extenders in many situations; the higher trained, the better, as far as I'm concerned. Many of the better physician assistants and nurse practitioners I am acquainted with do not practice independently nor do they want to practice essentially out of the eyesight or at the least the response time of a good physician.

"This gets us down to the real crux of the problem," Dr. Yohn continued. "If the physician extender, of any type, can help that physician in his office setting, across the hallway, across the street, even down the street, why not at the other end of the county?

"The difference is that the physician is still immediately available in the immediate vicinity of his practice. I don't believe that most nurses, even most nurse practitioners, should practice several counties removed. I should not be able to supervise a nurse practitioner in West Alabama. But I might do a fairly good job of supervising one across the hall.

"Somewhere between that side of my building and the other side of the state there has to be a limit."

Dr. Yohn believes that the new interest in nurse practitioners—one that did not exist when he was young, a time when more people lived in the country and there were fewer doctors—can be attributed to the pressure generated by the availability of federal grants.

How about the clinic preceptor who shows up once a week to go over the NP's charts?, Dr. Yohn was asked. What is he really doing?

Dr. Yohn: "He's sanctifying her existence, that's all. That's not supervision."

He concluded:

"We are not antagonistic toward the nursing profession certainly, not even nurse practitioners, the institutions that train them, or the clinics or rural health initiatives. However, the law in Alabama pretty well describes what the practice of medicine is. It goes further, to prohibit anyone from engaging in such practice, diagnosis and treatment of human illness, unless that person is operating under the scope of a current license. Physicians in Alabama are charged with the responsibility to report any instances where a physician is aiding or abetting the illegal practice of medicine.

"This then is the problem of defining what a nurse practitioner is and what she can and cannot do. It is a very complex problem. That is why the Credentials Committee is working with nurses—to identify where the expanded role of nursing is within the framework of Alabama law."

A SHORT HISTORY OF MOBILE

COURTESY OF THE MUSEUM OF THE CITY OF MOBILE

355 Government Street

Spring floods Mobile with beauty. . . The pomp and beauty of spring. . . are old in Mobile's tradition; for this has long been a city that loves a colorful spectacle. Perhaps it was Louis XIV himself who set the pattern. He was the city's founder, and Mobile is the only city in the New World established under his direct patronage.

That was in 1702 when the Grand Monarch was at the peak of his splendor and power. He dreamed of driving the English out of their Atlantic colonies, and he intended to do it from Mobile. The plan failed, but Mobile prospered and grew. Today, after five changes of flags, it is still the fun-loving city Louis XIV called his own.

LADY ISABELLA

History and beauty had touched Mobile even before the coming of the French. As early as 1519 Spanish explorers seeking the elusive passage to the Orient had mapped and named Mobile Bay.

The Lady Isabella, DeSoto's wife, was waiting in the bay with his fleet when he met disaster some hundred miles to the north in the battle of Mauvilla. Isabella was the first famous beauty to set foot on American soil. She had been the toast of the Spanish court, and her charm was known wherever the Spanish flag was flown.

Legend has it that she planted fig trees on Dauphin Island to while away the time, and that the trees still growing there are descendants of those she tended.

There must have been beautiful women among the 1,500 colonists who came in 1559 to settle on the shores of Mobile Bay under the command of Tristan De Luna.

Those were the days of the Spanish Main, and Mobile Bay had become a rendezvous for the pirates who preyed upon the fat treasure fleets. The viceroy of Mexico was patron of the colony, traveling to Vera Cruz in pomp to see it launched, and watching its progress with eager eye.

There were wives and daughters of noble Spaniards among the colonists. Surely in such a company laughter and dancing, and discreet flirtation, must have been in order. But there was too much pomp and too little planning, and the gay company abandoned the attempt to colonize. If they had remained, Mobile would be the oldest city in the United States.

But the French founded for the future , and their colony survived. Under the powerful LeMoyne brothers, Iberville and Bienville, Mobile was designed to be the Paris of the New World. As capital of the great province of Louisiana it ruled half a continent, and it lived accordingly. Court etiquette was insisted upon, and the worst that could be said of a man was that he did not keep a personal servant.

A MAN'S WORLD

In the early days, it was a man's world, a military post not deemed a proper place for the fair sex. Eventually wives and families came, but still there was a preponderance of lusty young bachelors, who complicated Indian relations.

Louis took heed of the wants of his young officers in 1704 and sent them a shipload of maidens eager for marriage. These were the Cassette Girls, the brides dowered by the king upon their promise to marry some unknown young man in far-off Mobile. Story and operetta have made them famous now, and they have been confused with later groups which came to Mobile and New Orleans, but these were the only true Cassette girls, the king's gift to his loyal men. Their promenade before the eager young blades of Mobile may well have been the first beauty contest in America.

MADAME CADILLAC

When Cadillac became governor, his lady rode up and down Royal Street in a gilded coach, to the amazement of the citizens. Madame was intent upon marrying off her daughters, and the coach made a convenient rolling display case. There were many suitors, but the most eligible bachelor in the colony, thirty-three year old ex-governor Bienville, was not interested. When he declined a proffered hand, the uproar was heard all the way to Paris.

The Cadillacs were not popular in Mobile, and they soon left in disgust, but Madame and her daughters may have introduced the taste for high style which is still a well-known attribute of Mobile ladies.

But all was not laughter and gaiety and high fashion in French Mobile. As Louis pushed his plan to drive out the English, the bloody war known as the French and Indian took shape. Brave expeditions departed from Mobile's quay, sped on by the booming of cannons and the waving of flags. Tattered expeditions returned, shattered by British and Indian superiority. Eventually the English were at the gates and there was no way to stop them. The gold lilies of Louis XIV came down and the Union Jack went up, and Mobile became English.

Highlanders in kilts strode along Royal Street, where Madame Cadillac had ridden in her gilded coach, and English children played where the children of the Cassette Girls had played.

Mobile remained English until the American Revolution was well under way. Envoys from the Continental Congress came, displaying copies of the Declaration of Independence and preaching revolution, but there was little interest. The French inhabitants cared nothing for the family quarrels of their English masters, and the new British settlers were largely Tory. Anyhow, the war was too far away.

SPANISH BY INVITATION

Washington was interested in Mobile, however, and eager to have it join in the revolution. When he became convinced that nothing was going to happen, he accepted the next best solution to the problem of misplaced loyalty. He signified to Don Bernardo de Galvez, the Spanish governor at New Orleans, that he would rather see Mobile Spanish than English. Galvez took the hint and moved upon the city.

Most of the old French and English buildings were destroyed in the siege, bombardment and demolition for defense taking equal toll. The British fought with their traditional doggedness, but when the fortifications were breached and the magazines exposed, they marched out to the sound of fifes and laid down their arms. Mobile had become Spanish.

Washington miscalculated in his maneuver, for the captured British garrison was parolled just in time to fight against him at Yorktown.

Spanish Fort, on the eastern shore of Mobile Bay, dates from this time. An English relief force from Pensacola was turned back there and a Spanish unit was stationed on the bluffs to guard against future attack.

By one of the most complicated series of land transfers in American history, the United States claimed Mobile as a part of the Louisiana Purchase, although the French had given up all title to it. Claims were not pressed as long as it was in friendly Spanish hands, but when the War of 1812 came on, friends changed, and a new look had to be taken.

CLAIMED BY AMERICA 1813

Spain had become friendly to England as a result of Wellington's aid in her attempt to throw off the control of Napoleon. When the war moved into the Gulf and England asked to use Mobile as a port of operation against New Orleans, Spain could not well refuse. That was more than President Madison could stand. He ordered General Wilkinson at New Orleans to take Mobile. Wilkinson did as ordered and, after another siege, Mobile became American in 1813.

The British were not to be outdone so easily; they prepared to recapture the city. That brought Andrew Jackson upon the scene, determined to be rid of redcoats for good. His headquarters were on Royal Street, and he could be seen there in milder moments smoking his pipe and joking with his Tennesseans. He beat off one British attack, then rushed to New Orleans to fight behind the famous cotton bales.

The British came back to Mobile, and he was hotly engaged with them again when word was received that the war had ended. The withdrawal of the British troops from Mobile Point at the mouth of the bay probably marks the last time an invader's foot rested on American soil.

The port and the plantation joined hands when Mobile became American. The great Alabama-Tombigbee river system washed some of the world's richest cotton lands. As white-pillared mansions sprang up in the wilderness, puffing river boats brought the white gold to Mobile for ocean shipment. The Cotton Kingdom was born, and Mobile was one of its richest capitals.

LAFAYETTE ARRIVES

One of the first indications of Mobile's new prestige as an American city was Lafayette's visit in 1825. He was on his grand farewell tour of the United States, a triumph such as had been accorded no other hero in the history of the nation. As he visited his old friends of the Revolution and the scenes of his campaigns, he was showered with gifts and honors.

Cities not on his itinerary begged him to turn aside and visit them, and his tour stretched out until he had covered all the original states. Then word came from Mobile. It was American now and it had been French; it invited him to visit. Nearly seventy years old and beginning to show the strain of a year of travel, he replied—he would come. Plunging into a wilderness still in the possession of Indians, he arrived eventually at Mobile.

A special pavillion had to be constructed for the grand ball which was given in Lafayette's honor on the evening of his arrival. Age had not dimmed the Marquis' appreciation of feminine beauty, and he proclaimed the ladies of Mobile the fairest he had seen in America.

Mardi Gras had been celebrated from French days, but it was not until the 1830s that mystic societies and theme parades appeared. In the 1840s and 1850s the parades became more elaborate and the costumes

more elegant, and the custom of ending the festivities with a masked ball developed. Thus was born in Mobile the form of Mardi Gras as it is now celebrated here and in New Orleans.

The first mystic society, the Cowbellion de Rakin Society, died, but its successor, the Strikers Independent Society, survived and is the oldest such organization in the country. It no longer parades, but its ball on New Year's Eve is the most exclusive of the many now held during the winter season.

The pageantry of the carnival has for more than a hundred years offered to Mobilians and their guests an opportunity to exercise to the fullest their bent toward gaiety and a flair for the colorful.

In the "Golden Fifties," the decade before the Civil War, Mobile reached its peak of extravagant living. It was in that period that Mobile became a city of sophistication and culture, at last the "little Paris" of which Louis XIV and Bienville had dreamed.

MADAME LE VERT

Planters' families came from the cotton country to spend the winter at the Battle House and attend the theatre and balls. Madame LeVert, hailed as the "most charming woman in the world" and the undisputed queen of Mobile society, could sit calmly in her box with Henry Clay as her guest while a great English actor threw temper tantrums in the wings because the box was attracting more attention than the stage. A gentleman was judged by his prowess as a horseman, a shot and a gallant.

The whirl of slave society rushed on to its climax in war. For four years Mobile was a city under siege, the best-defended city of the Confederacy and the only major city unoccupied until after the final surrender.

The war years were filled with the excitement of high courage and light-hearted hope, of shock, of determination, disillusionment and despair in Mobile as in the other cities of the Confederacy. When uniforms were fresh and gowns were new there were outings on the bay and excursions to Fort Morgan, military balls and parades. As the war closed in, the dancing continued but the churches were also open for prayers for the crumbling Confederacy.

Then came the terrible fifth of August, 1864, when Farragut damned the torpedoes and the bay roared with fire of 200 guns. The navies of the world were obsolete after the Battle of Mobile Bay, the era of the wooden ship had ended.

More than a 100 years have passed since that day. Mobile has learned to live with the Yankees again, and even admits to liking it. A great city with a great future, she is proud of her past, glad that she has seen so much history, and still enjoying life very much.

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See next page for brief summary of prescribing information.

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CONTRAINDICATIONS

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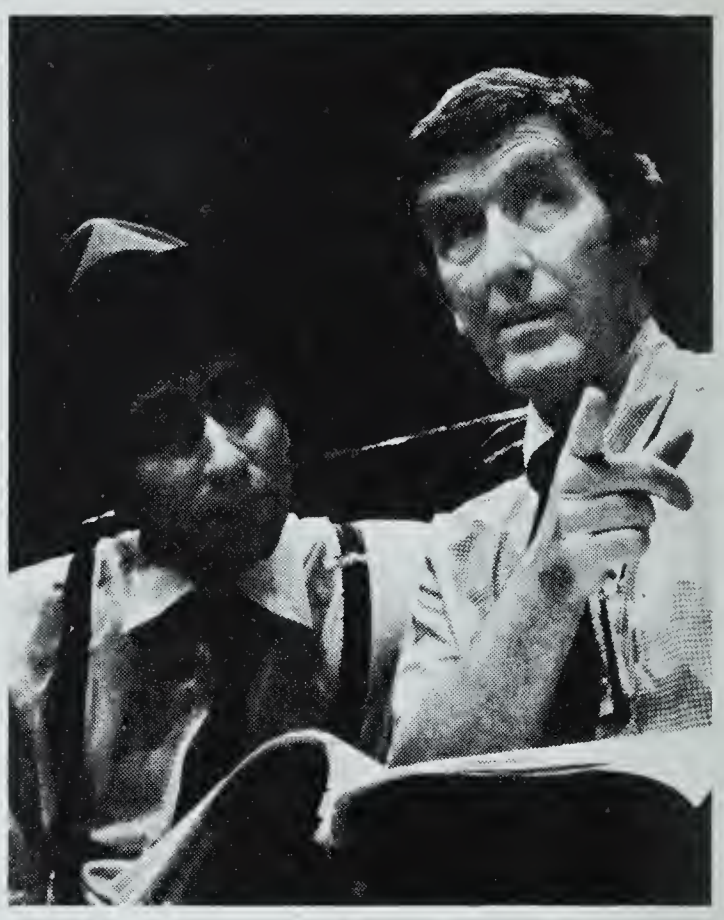
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Married: Four children
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Ethical Options in Medicine

***Ethical Options in Medicine,* Gregory E. Pence, Ph.D., Medical Economics Press, Oradell, N.J., 1980, 221 pp, $17.50.**

Reviewed by S. D. Palmer, M.D., Sylacauga, Alabama.*

Gregory Pence, Ph.D., holds appointments in the best of two worlds: he is in the School of Medicine, where he is Coordinator of the Human Values in Medicine Program, and on the panel for human experimentation; and he is in the Department of Philosophy of the University of Alabama in Birmingham. Thus he hearkens back to more ancient days, when philosopher-physicians seem to have been more visible. And, indeed, he advocates a system based upon the virtues in their classical interpretation. He proposes to illuminate the kinds of choices people must make when caught in complex moral problems in medicine, and to point the need to return to the virtues as a philosophical foundation for ethical, rational determinations.

He does well. Following a presentation illustrative of the need for a moral philosophy, and moral philosophers, in modern medicine, he has a chapter on several general theories of ethics, including relativism, Aristotelian virtues, Christianity, Kantian ethics, and Benthamic utilitarianism. Analysis finds each ethical theory to be inadequate and he proposes a modern theory of virtues, based upon Aristotle's concepts.

Virtues are traits of character, characterized by dispositions to feel and to act in certain ways. These virtues are not totally innate but are educable; and it is Dr. Pence's earnest plea that the student of medicine—in medical school or in practice—acquire and nurture such virtues as courage, justice, temperance, *phronesis,* friendship, honesty, love, humility, compassion, integrity, and—!—professional competence.

We find much to applaud in Pence's book. We have long believed that a physician should do a certain amount of charitable practice not entirely, even primarily, to alleviate illness in those individuals whom he treats, but for *his own soul's sake*. But "physicians won't want to serve the poor until systems of medical education emphasize the virtues of serving over the virtues of research." Charity is confused and flawed when it is exhibited as a response to food stamps, to demands for rights, to the dole. The governmental takeover of medical care would interfere—it *does* interfere—with compassion and caring. This succinctly illustrates, Pence correctly says, "the problem of rights and the advantages of virtues," or, in liturgical terms, the difference between an offering and a collection.

Pence further presents illustrative cases in the several broad areas of ethical choices in Procreative Decisions; Euthanasia, Death, and Dying; Rights and the Right to Medical Care; and Experimentation with Human Beings. Each of these chapters terminates with analyses of solutions of these problems by a virtue-based philosophy.

An exceptionally cogent presentation of the types of traditionally accepted physician-patient relationships succeeds in pointing the flaws in each and Pence proposes a relationship built upon the virtues. He analyzes the "virtues of good physicians (which) include the virtues common to all good persons as well as more specialized ones that suit the physicians' roles." *Phronesis*—Aristotle's "practical judgment"—is discussed, as are temperance, courage, honesty, justice, and professional competence. ("Humility is not so much a separate virtue as the natural result of real honesty.")

A superb book. I completely believe that a return to a virtue-based philosophy of medicine is radical, is correct, is necessary. Dr. Pence's illustrative cases are extremely well presented and appropriate.

I suppose it is part of conditioned sophistication of physicians that we attempt to denigrate medical presentations by non-M.D. people, by searching for minutiae in word inappropriateness, transparent inadequacy in the author's comprehension of presented material, etc. Physician-pedants will be disappointed; Dr. Pence has got his act quite together. We have the feeling that he has participated in many, many long hours of lecture, rounds, *quid-pro-quo* rap sessions, and library research.

In a few areas this reviewer would like to quibble a bit. We would have hoped that a logician, a philosopher would make no marketplace errors. Pence's lucidity in analysis is considerably adumbrated by several careless constructs. Thus he both unfairly criticizes the paid

*S. D. Palmer, M.D., Sylacauga Pediatrics, 201 West Fort Williams, Sylacauga, AL 35150.

blood donor in wholesale, damning terms, but compounds this by referring to paid donors as "the U.S. system." Many involved in bloodbanking would think, I believe, that the issues are not quite so divisible into black and white, nor is it fair to report that "the U.S. system (paid donors) encourages materialism and deception."

A similar careless statement wholesalely accuses American doctors of "not taking seriously" the issues of animal experimentation. Worse, Pence damns rather too sweepingly the lack of some virtues. "Medicine hasn't supported courage among its members, and instead has supported self-interested silence and acceptance of evil." The invalidity of this as a general condemnation is so apparent as to make both protest and illustration unnecessary, for we have all known and worked with antitheses to this proposition.

In a possibly unfair way the author occasionally uses words with emotional charges, knowing exactly how to use them! Thus, he refers to cosmetic surgery as "requests for disfigurement." (One of the examples was a reductive mammoplasty for a woman who sought *relief* from what she believed to be disfigurement already!) The issue, and it is a real one, can better be discussed without the use of what I believe to be a prejudicial term.

We must disagree rather sharply with Pence's analysis of a human zygote as more nearly resembling an ameba than a human. A consideration of the submicroscopic biochemical composition, as well as its ordained destiny, makes such a statement inept, although it is a rather necessary part of the "continuity analysis," "degrees of personhood" concept which states that "personhood is a matter of degrees between conception and adulthood . . . and no point along the way, including birth, can signify personhood and still escape the charge of arbitrariness."

Dr. Pence spends a little thought and time on the "quality of life" zone, which can and does—even in his book—slip slyly into "lifestyle", possessions, and *impedimenta.*

We have real problems with his acting—omitting principle and euthanasia, but he is thoughtful and thought-provoking, and we listen.

We joyfully thump the drum for this book. It is turgid with thought-demanding issues and propositions. From his vantage point of philosopher-on-the-medical-school-faculty, Dr. Pence understands, as very few do, many problems in our profession, such as the inescapable gulf between news media presentations of medical material and the complex realities behind the events; and that "full disclosure" is inherently impossible, although this paradoxically can coexist with truthtelling; and other enigmas.

A great book. A copy could be something of a *vade mecum* as we—fledglings, learned faculty, or firing-line physicians—confront, meditate, analyze our problems and ourselves.

Expense Account of Mobile Board of Health from May 1st, to December 31st, 1875, inclusive

1875		
May 31—To salaries of officers and employees of Board of Health ...	$297.00	
		$297.00
May 31—To supplies for City Dispensary ...	192.31	
May 31—To office expense—rent, light, &c.	45.00	
May 31—To office supplies—printing, book binding, &c.	162.55	
May 31—To smallpox hospital .	11.80	
May 31—To expense (incidental)		6.30
	$417.96	$417.96
Total		$714.96

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Annual Session Program

April 23-25—Mobile

Thursday, April 23
Opening Session
ORIENTATION

OPENING SESSION

Thursday, April 23, 1981

Room 3
Municipal Auditorium
Mobile, Alabama

9:00 A.M.

CALL TO ORDER

C. A. Lightcap, M.D.
Mobile
President, Presiding

INVOCATION

Archbishop Oscar Lipscomb
Mobile

WELCOME

Robert B. Doyle, Jr.
Public Safety Commissioner
City of Mobile

WELCOME

Julian S. Lewis, M.D.
President
Medical Society of Mobile County
Mobile

PRESIDENT'S MESSAGE

C. A. Lightcap, M.D.
Mobile

9:20 A.M.

ORIENTATION PROGRAM

J. Kendall Black, Jr., M.D.
Huntsville
President-Elect, Presiding

Theme: The Effects of the Following Regulations on Physicians:

9:20 A.M.—9:35 A.M.

Mr. Tom Douglass, Director of Professional Relations, Blue Cross-Blue Shield of Alabama, Birmingham

"Medicare" (fee profiles, covered services, the impact of PSRO)

9:35 A.M.-9:50 A.M.

Mrs. Rebecca Beasley, Commissioner, Medicaid Agency, Montgomery

"Medicaid" (profile update, availability of state funds, eligibility)

9:50 A.M.-10:05 A.M.

George A. Reich, M.D., Regional Health Administrator, Public Health Service, Department of HHS, Atlanta, Ga.

"Health Planning Laws" (Public Law No. 93-641, PUFF—Proposed Use of Federal Funds, Appropriateness Review)

10:05 A.M.-10:20 A.M.

Questions & Answers

10:20 A.M.-10:40 A.M.

BREAK TO VIEW EXHIBITS

10:40 A.M.

Theme—"The Physician and His Organization"

10:40 A.M.-10:50 A.M.

Leon C. Hamrick, M.D., Chairman, Board of Censors of The Medical Association of the State of Alabama, Fairfield

"The Organization of the Association"

10:50 A.M.-11:10 A.M.

William T. Wright, M.D., Past President of MASA, Mobile

"How Physicians Influence Their Association"

11:10 A.M.-11:20 A.M.

A. Derrill Crowe, M.D., President, Mutual Assurance Society, Birmingham

"Mutual Assurance Society of Alabama"

11:20 A.M.-11:30 A.M.

William A. Leitner, M.D., Birmingham
"Alabama Medical Pac"

11:30 A.M.-12:00 Noon

Harrison L. Rogers, Jr., M.D., Vice-Speaker of the House of Delegates, American Medical Association

"The Organization and Membership of the AMA"

12:00 Noon-12:15 P.M.

Questions & Answers

Thursday, April 23, 1981

12:15 p.m.-1:45 P.M.

Young Physicians Conference Luncheon

Ballroom A

Sheraton Inn

Joel A. Wissing, M.D., Presiding

12:30 P.M.

Auxiliary Luncheon

Sheraton Inn

PRACTICE MANAGEMENT— MANAGING MONEY IN YOUR PRACTICE

Thursday, April 23, 1981

Room 3
Municipal Auditorium

2:00-5:00 P.M.

A new optional feature of this year's Orientation Program is a special practice management program of interest to those recently established in practice as well as physicians who might like to take a second look at some of the business aspects of their practice.

Ms. Zupko's presentation of many practical tips and useful reference material will focus on these areas of money management: financial controls of incoming and outgoing flow of money; handling accounts receivable; and collecting on consultations.

Karen Zupko
Director
Department of Practice Management
American Medical Association
Chicago, IL.

REFERENCE COMMITTEE HEARINGS

Thursday, April 23, 1981

2:00-5:00 P.M.

REFERENCE COMMITTEE A

(MEDICAL EDUCATION AND INTERSPECIALTY COUNCIL)

Room A—Municipal Auditorium

Members

Joyce Gendzwill, M.D., Chairman, Elmore
Norton E. Cowart, M.D., Madison
Julius Michaelson, M.D., Baldwin
John M. Packard, M.D., Jefferson
Donald C. Overstreet, M.D., Dallas

Alternate

Robert E. Burney II, M.D., Lee

Liaison

Margaret S. Klapper, M.D., Jefferson

Board Liaison

Ira B. Patton, M.D., Blount

Staff

George D. Oetting, Ed.D.

REFERENCE COMMITTEE B (MEDICAL SERVICE AND SOCIO-ECONOMICS)

Room C— Municipal Auditorium

Members

Robert M. Bucher, M.D., Chairman, Mobile
Robert C. Simmons, Jr., M.D., Calhoun
Andrew D. Jamieson, M.D., Lauderdale
William A. Leitner, M.D., Jefferson
William L. Smith, M.D., Montgomery



Alternate

Phillip K. Bobo, M.D., Tuscaloosa

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Willis D. Israel, M.D., Randolph

Board Liaison

Ronald E. Henderson, M.D.

Staff

Emmett Wyatt

Lon Conner

REFERENCE COMMITTEE C

(LEGISLATIVE-PUBLIC AFFAIRS)

Room G—Municipal Auditorium

Members

Charles E. Herlihy, M.D., Chairman, Jefferson

William B. Shadburn, M.D., Montgomery

W. Earle Riley, M.D., Jefferson

Michael L. McErearty, M.D., Baldwin

Ellis F. Porch, M.D., Marshall

Alternate

Lonnie G. McCormick, M.D., Madison

Liaison

O. Emfinger, M.D., Bullock

Board Liaison

Kenneth C. Yohn, M.D.

Staff

William H. McDonald

5:30 P.M.

TULANE ALUMNI

RECEPTION

Sheraton Inn

5:30 P.M.

UNIVERSITY OF ALABAMA

ALUMNI RECEPTION

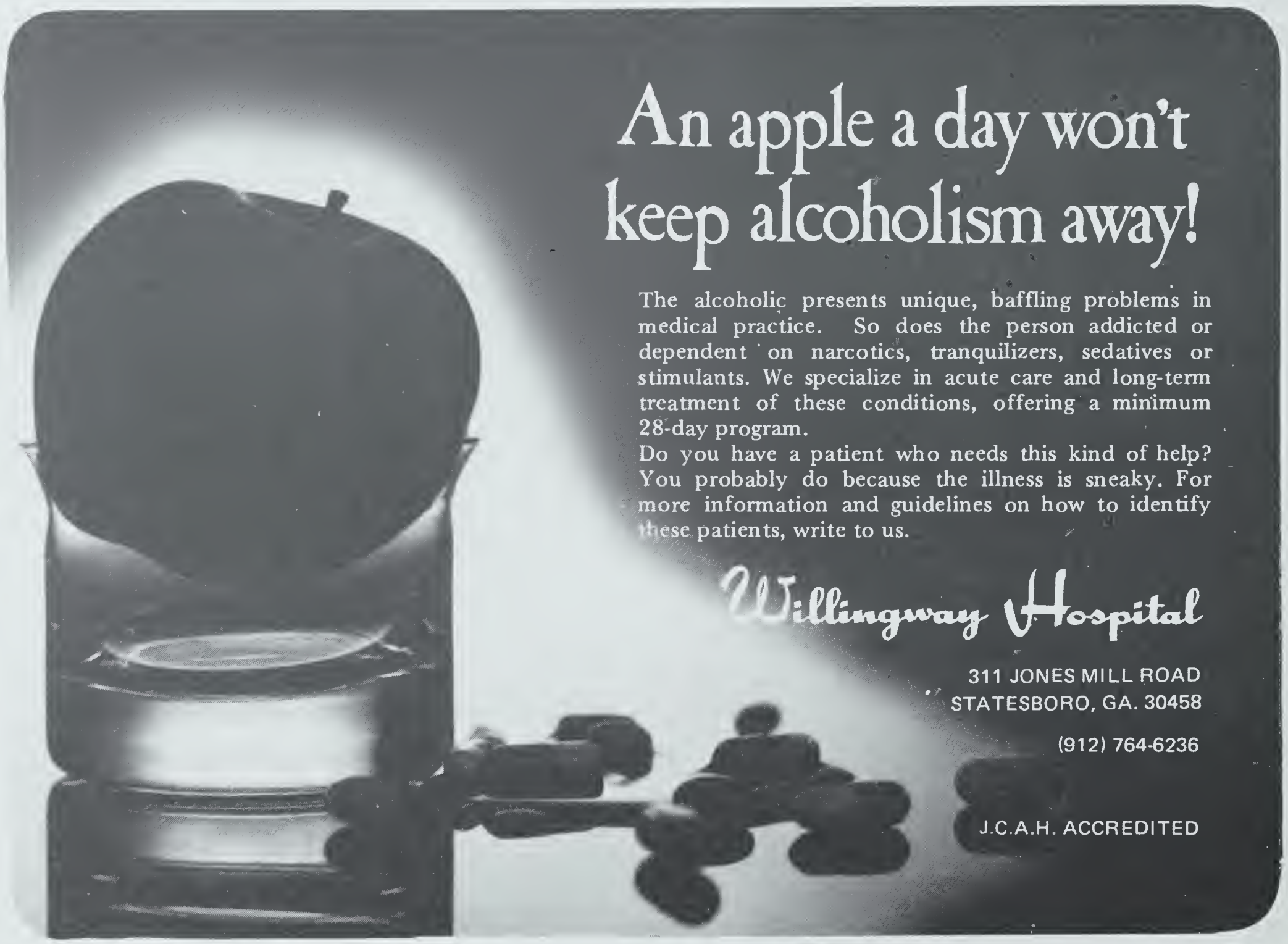
Sheraton Inn

7:00 P.M.

MEDICAL SOCIETY OF MOBILE COUNTY

RECEPTION AND DINNER AT FORT CONDE

Entertainment by the Bob Schultz Band



Friday, April 24 (Morning)

MASA PRAYER
BREAKFAST

7:30 A.M.

Ballroom D
Sheraton Inn

Arthur A. Stamler, M.D.

Decatur

Presiding

Speaker

1981 Scientific Session—Friday, April 24, 1981

Room 3—Municipal Auditorium

"Diagnostic Resources for the Practicing Physician"

This year's Scientific Session will focus on the current diagnostic resources (technology, procedures, etc.) available to the practicing physician. A general morning session will overview recent advances in diagnostic technology as well as the role of the patient as the most powerful diagnostic resource.

Three concurrent afternoon sessions will be offered, focusing in on specific diagnostic resources available to the physician. Each will follow the same time frame so participants can select three of the available nine sessions.

Jack Hyman, M.D.
Mobile
Vice-President, Presiding

ANNUAL SESSION—Friday Morning

9:00-9:45 A.M.

Fred S. Callahan, M.D.,

Director of Clinical Neurophysiology Lab, Assistant Professor of Neurology, University of South Alabama College of Medicine, Mobile

"Recent Advances in Diagnostic Technology"

(Overview in recent advances in diagnostic technology including clinical laboratory diagnosis, non-invasive technology, invasive technology)

9:45-10:30 A.M.

Robert M. Bucher, M.D.

Professor of Surgery, University of South Alabama College of Medicine, Mobile

"Balancing Technology and the Art of Medicine in Diagnosis"

(The progress of medicine and the potential of the new technology mandates a need to balance technical science with the human side of medicine—the art of medicine. Purpose: To reinforce the union of science and human concern.)

10:30-11:00 A.M.

BREAK TO VIEW EXHIBITS

11:00-12:00 Noon

The Jerome Cochran Lecture

INTRODUCTION

J. Kendall Black, Jr., M.D.,
President-Elect,
The Medical Association of the State of Alabama
Huntsville

James S. Todd, M.D.,

Practicing Surgeon, Ridgeway, New Jersey; Trustee of the American Medical Association and Chairman, Ad Hoc Committee on the Principles of Medical Ethics

"Medical Ethics"

Friday—April 24

12:15-1:45 P.M.

COUNTY MEDICAL SOCIETY OFFICERS LUNCHEON

Friday, April 24, 1981

Ballroom D
Sheraton Inn

William P. Coats, M.D.
Mobile, Presiding

Speaker:

12:30 P.M.

AUXILIARY TO MASA LUNCHEON

Guest Speaker: James S. Todd, M.D. AMA Board of Trustees

Subject: The Liabilities of a Physician's Spouse

Afternoon Simultaneous Sessions:

(2:00 P.M.-5:00 P.M.)

Three concurrent afternoon sessions will be offered, focusing in on specific diagnostic resources available to the physician. Each will follow the same time frame so you can select three of the available nine sessions.

Section A—Room 3

William D. Lazenby, M.D.—Presiding
Member, Council on Medical Education

2:00-2:50 P.M.

Hing Har Lo, M.D.,

St. Francis Hospital, Columbus; and Auburn University

"Nuclear Medicine Update"
(Nuclear Cardiology, gallium, hepatobiliary imaging)

2:50-3:40 P.M.

H. Peter Jander, M.D.,
In Private Practice with Radiology Associates, Birmingham

"Interventional Radiology"
(Embolization procedures, angioplasties, biliary and urinary interventive procedures)

3:40-4:10 P.M.

BREAK TO VIEW EXHIBITS

4:10-5:00 P.M.

S. Timothy String, M.D.,
Vascular Surgeon, Mobile

"Assessment of Arterial and Venous Systems by Non-Invasive Methods"
(Use of the vascular laboratory)

Afternoon Simultaneous Sessions:

(2:00 P.M.-5:00 P.M.)

Three concurrent afternoon sessions will be offered, focusing in on specific diagnostic resources available to the physician. Each will follow the same time frame so you can select three of the available nine sessions.

SECTION B—Room G

T. Riley Lumpkin, M.D.—Presiding
Member, Council on Medical Education

2:00-2:50 P.M.

William A. Hill, M.D.,
In Private Practice and Clinical Assistant Professor, College of Community Health Sciences, Tuscaloosa

"Non-Invasive Cardiac Procedures"
(EKG treadmill testing and echocardiography)

2:50-3:40 P.M.

William S. Freeman, M.D.,
Assistant Professor and Deputy Chairman, Department of OB-GYN, College of Community Health Sciences, Tuscaloosa

"Non-Invasive Techniques in OB-GYN"
(Ultrasound, colposcopy, x-ray techniques)

3:40-4:10 P.M.

BREAK TO VIEW EXHIBITS

4:10-5:00 P.M.

Ronald C. Phelps, M.D.,
In Private Practice, Tuscaloosa

"Non-Invasive Fields in Radiology"
(CT and ultrasound, digital radiography)

Afternoon Simultaneous Sessions:

(2:00 P.M.-5:00 P.M.)

Three concurrent afternoon sessions will be offered, focusing in on specific diagnostic resources available to the physician. Each will follow the same time frame so you can select three of the available nine sessions.

SECTION C—Room A

Martin Putnoi, M.D.—Presiding,
Member, Council on Medical Education

2:00-2:50 P.M.

Hans Zellweger, M.D.,
Professor of Pediatrics, University of Iowa School of Medicine; Currently—Distinguished Visiting Lecturer, Department of Medical Genetics, University of South Alabama College of Medicine, Mobile

"When Do You Have to Become a Medical Geneticist?"
(Infertility-Abortions, mental retardation and prenatal studies)

2:50-3:40 P.M.

Edmund A. Dowling, M.D.,
Professor of Pathology, University of South Alabama College of Medicine, Mobile

"Modern Techniques and Advances in Cytopathology"
(Screening, endoscopic brush techniques, fine needle aspiration)

3:40-4:10 P.M.

BREAK TO VIEW EXHIBITS

4:10-5:00 P.M.

William James Pollock, M.D.,
Assistant Professor of Pathology, University of South Alabama College of Medicine, Mobile

"Clinical Application of Enzymes"
(CPK & LDH and their isoenzymes; GOT, GPF, GGTs)

Friday, April 24

6:30 P.M.

COCKTAIL RECEPTION

Ballroom
Sheraton Inn

AWARDS DINNER

Friday, April 24, 1981

Ballroom
Sheraton Inn

8:00 P.M.

Richard H. Esham, M.D.
Mobile
Chairman, Council on Public Affairs
Presiding

INVOCATION

AWARDS PRESENTATION

Douglas L. Cannon Medical Reporter Award To:

Robert E. Kirby
Specialist in Consumer Health
Information
Mobile

Carmen R. Wann
Scottsboro Sentinel
Scottsboro

Elizabeth Ann Varnum
Television Producer
Dothan

William Henry Sanders
Award To:

James B. Stapleton, M.D.
Dothan

INTRODUCTION OF DISTINGUISHED GUESTS

Jack Hyman, M.D.
Vice-President
The Medical Association of the State of Alabama
Mobile

PRESENTATION OF FIFTY YEAR CLUB MEMBERS—1981

Maurice Eugene Barrett
Joseph Spiegel Camp
William Henry DeRamus
Benjamin Friedman
Harry Glazer
Eugene Byron Glenn
John Felix Jenkins, Jr.
J. Hurley Knight
Arthur Mazyck, Jr.
Eldridge Cook Simmons
Wyatt Collier Simpson
Josiah Harris Smith
George Knox Spearman
Homer Clarence Springer
Thomas Elzie Van Sant
Jonathan Richard Williams
Arthur Anson Wood

INTRODUCTION OF PAST PRESIDENTS

Luther L. Hill (1979-80)
Hiliary H. Henderson, Jr. (1978-79)
John B. M. Rice, Jr. (1977-78)
William T. Wright (1976-77)
E. Vernon Stabler (1975-76)
J. Garber Galbraith (1974-75)
E. E. Camp (1973-74)
F. M. Phillippi, Jr. (1972-73)
A. E. Thomas (1971-72)
O. Emfinger (1/4/71-4/17/71)
C. Kermit Pitt (1969-70)
E. L. McCafferty, Jr. (1968-69)
E. Bryce Robinson, Jr. (1967-68)
J. O. Finney (1966-67)
E. B. Glenn (1964-65)
James G. Daves (1963-64)
M. Vaun Adams (1962-63)
Hugh E. Gray (1960-61)
Edgar G. Givhan, Jr. (1958-59)
John A. Martin (1957-58)
Grady O. Segrest (1956-57)
Jesse P. Chapman (1947-48)

Saturday, April 25

ANNUAL BUSINESS SESSION

Saturday, April 25, 1981
Ballroom
Sheraton Inn

C. A. Lightcap, M.D.
Mobile
President, Presiding

1. Approval of 1980 Transactions
2. Presentation by the Auxiliary to The Medical Association of the State of Alabama, Mrs. O. B. Carr, Jr., Immediate Past President
3. Presentation of Mutual Assurance Society—A. Derrill Crowe, M.D.
4. Presentation of AMA Delegates' Report—Orizaba Emfinger, M.D., Chairman
5. Presentations of Board of Censors, Leon C. Hamrick, M.D., Chairman
   a. Report of State Department of Public Health, Ira L. Myers, M.D., State Health Officer
   b. Report of State Board of Medical Examiners, C. E. Robert Parker, M.D., Secretary
6. Report of Board of Censors on Association Affairs
   a. Consideration of Reference Committee Reports
   b. Supplemental Reports
7. Election of Officers
8. Election of Counsellors
9. Installation of Officers
10. Other Business
11. Adjourn

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U. S. QUARANTINE, A CHRONOLOGY

Some of the earliest public health laws involved quarantine. The Alabama experience derives largely from the Mobile experience. This brief history of quarantine, and the immigration laws that grew out of quarantine, was prepared by Acting State Docks Director Bob Hope and his staff for this issue of the Journal.

1981—Medical Inspections law called for Quarantine Stations to be established to service all ports of entry. Stations equipped with caretakers, housing, doctors, hospital facilities, nurses dormitory service and graveyards developed from this. Doctors boarded ships in the harbor for examinations—"shipside boarding." Contagious diseases quarantined. Patients to quarantine stations. Ships held out of harbor until incubation period of disease passed.

McDuffie Island was a quarantine station—one of about 15 in U.S.—four in Gulf. All immigrants were examined—had to be held for vaccination for smallpox and yellow fever after early 1900s.

Ship Island—Off Gulf Port, Mississippi was a Yellow Fever Station for the Gulf. A hospital and a graveyard. Until Reed and Gorgas curbed the fever in early 1900s, Ship Island was very busy. Innoculation and mosquito control eased Yellow Fever problem but Station remained on ready with skeleton crew on call until Hurricane Camille.

McDuffie Island & Shipside Boarding continued until 1952 when it was determined there was not enough business to justify.

Quarantine Stations Closed—Went to dockside boarding, a Springhill Avenue office and contract physicians. These offices closed in 1972 and smallpox was declared "eradicated" and vaccination not required. Closest Public Health Office is New Orleans. Contract physicians now scattered. They advise ships' captains and ports following routine clearance reports. Ship is boarded at Docks by Customs, U.S.D.A. inspectors (Plant Quarantine) and Immigration Service. Public Health Service is not involved unless called upon for a particular case.

Immigration—Controlled by Congress. A history of Legislation:

1875—The first Legislative Act—prohibited the admission of convicts and prostitutes.

1882—The first general Immigration Act provided a head tax of 50 cents and barred admission of idiots, lunatics, convicts and "persons likely to become public charges."

1882—Also adopted first **Chinese exclusion law.** This was a source of controversy until repealed in 1943.

1885—Contract Labor Law. Aimed at practice of employers importing large groups of cheap labor (upheld by Supreme Court in test case).

1888—Authorized deportation of alien contract laborers within one-year of entry.

1891—First Medical Regulation provided for medical inspection and added to excludable classes, "persons suffering from lothesome or dangerous contagious diseases, persons previously convicted of criminal offense involving moral turpitude, paupers and polygamists. "Also provided for deportation of aliens who entered unlawfully.

1893—Provision made to establish **Boards of Special Inquiry,** and for furnishing manifests or lists of passengers by vessels entering U.S. ports.

1903—Added to excludables: epileptics, insane persons, professional beggars and **anarchists** (one, so-called, had assassinated President McKinley).

1907—Added to excludables: feeble minded, children under 16 not accompanied by parents, persons suffering from physical or mental defects that might affect their ability to earn a living.

1907—A Commission appointed to study immigration problem. Commission reported in **1911** but no legislation resulted until 1917.

1917 General Law—Codified (systemitized) previous laws on exclusions and added two groups to excludables: "illiterates and persons from a designated geographical zone—most of Asia and Pacific Islands."

1917—Also, defined and broadened the powers of immigration officers, plus discretionary power to Secretary of Labor (now given to Attorney General) to admit certain excluded groups in "meritorious cases."

1921—First Numerical Limitation, permitted annually 3% of number of persons of each nationality in U.S. as of 1910, temporary law.

1924—Limitations made permanent, limited number immigrants to 150,000 per year, and required advance visas by aliens.

1940—Alien Registration Act, also permitted deportation of "subversive groups."

1952—Immigration and Nationality Act—outlined naturalization process.

1954—Eased regulations on excluded classes—allowed a single criminal offense.

1957—Authorized Attorney General to admit certain aliens of criminal and immoral classes with close relatives in U.S.—limited to 50 per year.

1958—"Test of Admissibility" for relatives added.

1959—"Relatives" redefined to include brothers, sisters, married sons and daughters of U.S. inhabitants.

1961—Provided for appeal of rejection or deportment in U.S. Court of Appeals.

1965—Abolished national origins quota system.

1968—Annual quota worldwide, with visas issued rejects for Naturalization because of nation quotas in previous years.

1965 forward.

1970—Further expansion of system of adjusting status for exchange of aliens. Added two classes of eligibles: Fiancees or finance of U.S. Citizen, and employee of U.S. firm abroad for 1-year.

HISTORY OF QUARANTINE SERVICE AUTHORITY

Prior to 1882—No federal authority.

1882—Secretary of Treasury

1884—Commissions of Immigration, State Department

1891—Immigration and Naturalization Service, Treasury Department.

1903—Transferred to Commerce and Labor.

1931—Transferred to (new) Department of Labor.

Since **1952 Act,** the Attorney General is authorize to withhold deportation, if, in his option, the alien would be persecuted back home."

Classified Advertising

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FLORIDA SUNCOAST VACATION CONDO—*Delight in the sunsets from your balcony on the Gulf of Mexico.* Luxurious 2 bedroom—2 bath condo on beautiful Indian Rocks Beach, Fla. Centrally located—convenient to Disney World, Tampa, St. Petersburg, and Clearwater, Fla. There is private covered parking. Completely furnished with wall to wall carpet. An all electric kitchen—micro-wave oven, dishwasher, washer, and dryer. Cable colored T.V. and a fireplace in the living room. Sorry, no pets. Prices—$400.00-weekly; $1,500.00-monthly; $1,400.00-annually. Contact Sue—813-586-3751 Mon.-Fri. 9-5; 813-360-1131 Nites—Week-ends.

Anesthesiologist—D.O., Certified and with 15 years experience in all phases of anesthesia with the exception of open heart. (814) 476-1211, James A. Hicks, D.O., 9140 Fry Rd., McKean, Pa. 16426.

FLOURISHING MONTGOMERY SOLO ORTHOPEDIC PRACTICE. This practice immediately available due to the sudden and unexpected death of Dr. L. Clyde Sheehan, Jr. Completely equipped and well managed office. Terms negotiable. Time is of the essence. Call collect 205-281-2381 or 205-284-1001.

CYCLAPEN®-W (cyclacillin)

Indications
Cyclocillin hos less in vitro octivity thon other drugs in the ompicillin closs and its use should be confined to these indicotions: Treotment of the following infections:

RESPIRATORY TRACT
Tonsillitis ond phoryngitis coused by Group A beto-hemolytic streptococci
Bronchitis ond pneumonio caused by *S. pneumoniae* (formerly *D. pneumaniae*)
Otitis medio coused by *S. pneumonioe* (formerly *D. pneumonioe*) ond *H. influenzoe*
Acute exocerbotion of chronic bronchitis coused by *H. influenzoe**
*Though clinical improvement hos been shown, bocteriologic cures connot be expected in oll potients with chronic respirotory diseose due to *H. influenzoe*.

SKIN AND SKIN STRUCTURES (integumentary) infections coused by Group A beto-hemolytic streptococci ond stophylococci, non-penicillinose producers.

URINARY TRACT INFECTIONS coused by *E. coli* ond *P. mirabilis*. (This drug should not be used in ony *E. coli* ond *P. mirobilis* infections other thon urinory troct.)

NOTE: Perform cultures ond susceptibility tests initiolly ond during treotment to monitor effectiveness of therapy ond susceptibility of bocterio. Theropy moy be instituted prior to results of sensitivity testing.

Contraindications Controindicoted in individuols with history of on ollergic reoction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of ontibiotics may promote overgrowth of nonsusceptible orgonisms. If superinfection occurs, toke oppropriote meosures.

PREGNANCY: Pregnoncy Cotegory B. Reproduction studies performed in mice ond rots ot doses up to 10 times the humon dose reveoled no evidence of impoired fertility or horm to the fetus due to cyclocillin. There are, however, no odequote ond well-controlled studies in pregnont women. Becouse onimol reproduction studies ore not olwoys predictive of humon response, use this drug during pregnoncy only if cleorly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in humon milk. Becouse mony drugs ore, exercise coution when cyclocillin is given to o nursing womon.

Adverse Reactions Orol cyclocillin is generally well toleroted. As with other penicillins, untoword sensitivity reoctions ore likely, porticulorly in those who previously demonstroted penicillin hypersensitivity or with history of ollergy, asthmo, hoy fever, or urticoria. Adverse reoctions reported with cyclocillin: diarrheo (in opproximotely 1 out of 20 potients treoted), nousea and vomiting (in opproximotely 1 in 50), ond skin rash (in approximotely 1 in 60). Isalated instonces of heodoche, dizziness, obdominol poin, voginitis, ond urticorio have been reported. (See WARNINGS) Other less frequent odverse reoctions which may occur ond ore reported with other penicillins ore onemia, thrombocytopenio, thrombocytopenic purpuro, leukopenio, neutropenio ond eosinophilia. These reoctions ore usuolly reversible on discontinuation of theropy.

As with other semisynthetic penicillins, SGOT elevotions hove been reported.

As with antibiotic theropy generolly, continue treatment ot leost 48 to 72 hours ofter potient becomes osymptomotic or until bocterial erodicotion is evidenced. In Group A beto-hemolytic streptococcol infections, at leost 10 doys' treotment is recommended to guord ogainst risk of rheumotic fever or glomerulonephritis. In chronic urinary troct infection, frequent bocteriologic ond clinicol oppraisal is necessory during theropy ond possibly for severol months ofter. Persistent infection moy require treotment for severol weeks.

Cyclacillin is not indicated in children under 2 months of oge.

Patients with Renol Failure Cyclocillin moy be sofely administered to patients with reduced renol function. Due to prolonged serum holf-life, potients with vorious degrees of renol impoirment moy require change in dosoge level (see DOSAGE AND ADMINISTRATION in pockoge insert).

Dosage (Give in equally spoced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Troct Tonsillitis & Phoryngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis ond Pneumonio		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/doy q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/doy†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosoge should not result in o dose higher thon thot for adults.
†depending on severity

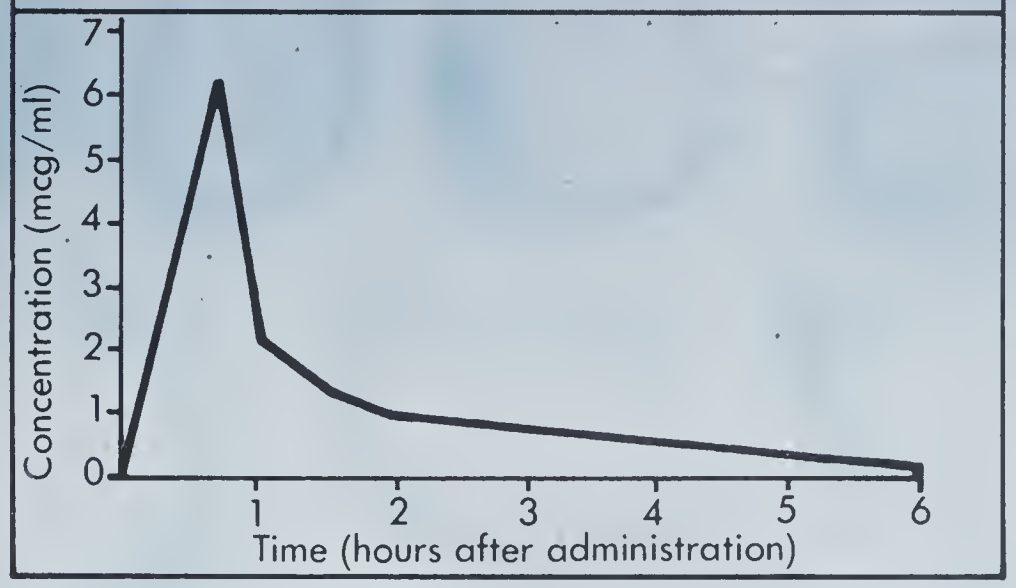
Wyeth Laboratories
Philadelphia, Pa. 19101

Half the dose is absorbed in 9 minutes!

compared to 32 minutes for ampicillin.*



Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T^{a} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Wyeth Laboratories · Philadelphia, Pa 19101

Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

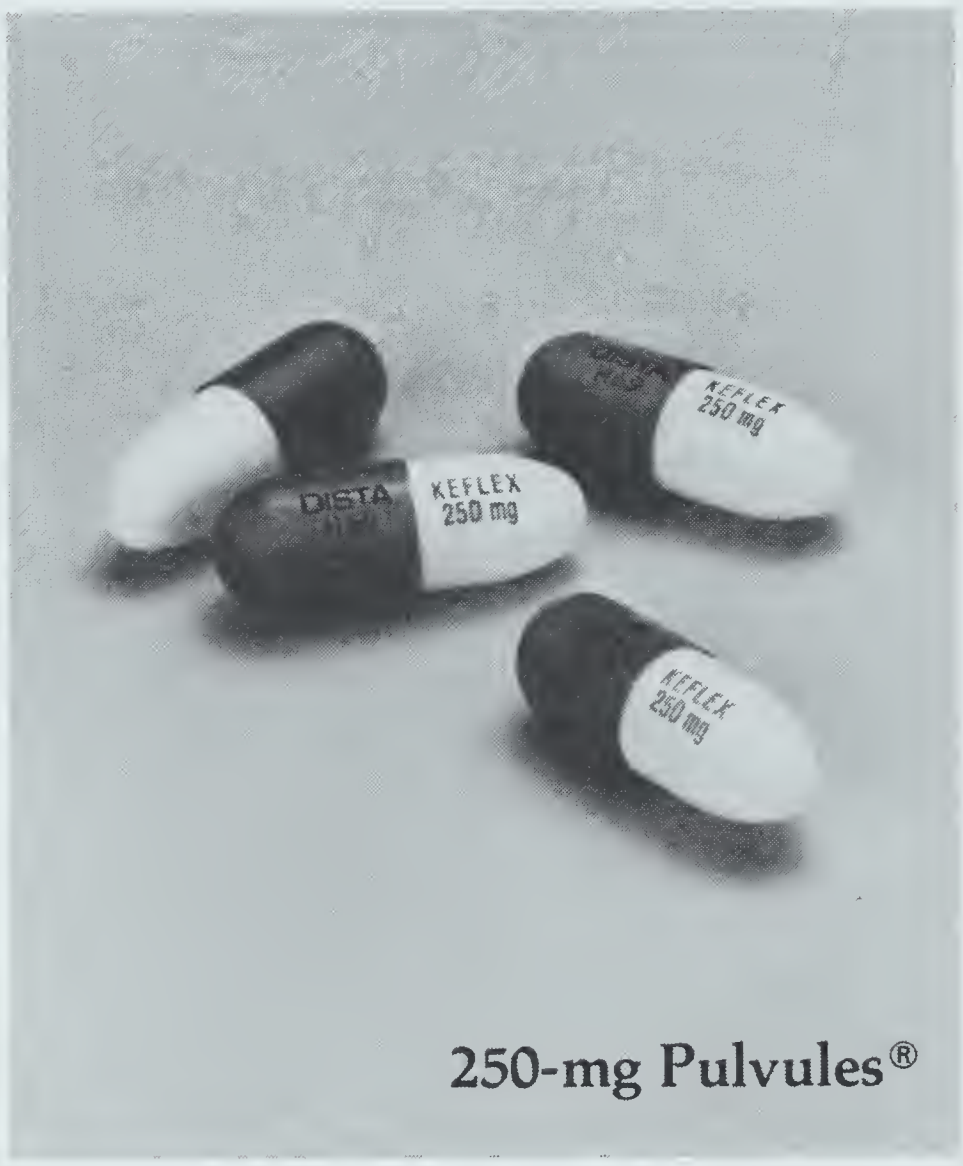
CYCLAPEN®-W

(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

more than just spectrum

NEW NAME

easy to take



250-mg Pulvules®



Oral Suspension

250 mg/5 ml
100 and 200-ml
sizes

125 mg/5 ml
60, 100, and
200-ml sizes

Pediatric Drops

100 mg/ml
10-ml size



Keflex®
cephalexin

Additional information available
to the profession on request.

DISTA

000823

Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46285
Mfd. by Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

Visitors Guide To Mobile

HISTORICAL DISTRICTS

Mobile boasts four historic districts—Church Street, DeTonti Square, Oakleigh Garden and Spring Hill recorded in the National Register of Historic Places which protects and projects some 250 prominent architectural landmarks dating to the early 19th century.

Within the Church Street and DeTonti districts are the following architectural styles: Federal (Georgian), Greek Revival, Renaissance and Baroque Revival, Gothic Revival, Victorian, and "Gulf Coast" raised cottage. These landmarks serve as municipal and county governmental complexes, museums, antique and curio shops, art galleries, food and merchantile stores, offices, hotels, restaurants, and multi-family and single family dwellings.

Oakleigh Garden Historic District, located close to the Central Business District of Mobile, encompasses ten blocks of Government Street, the main east-west thoroughfare of the city.

The district is primarily a Victorian neighborhood, with restored residences making up the majority of the buildings. In addition to the fine examples of Eastlake Victorian architecture, are outstanding buildings of raised "creole" cottage, Federal, Greek Revival and Carpenter Gothic architecture. Oakleigh from which the district takes its name, is the best example of T-shaped raised-cottage architecture in the state.

MOBILE LANDMARKS

Imposing Mobile landmarks include Oakleigh Mansion, City Hall-City Market (a National Historic Landmark), Barton Academy, the Fort Conde-Charlotte House, Admiral Raphael Semmes Home, the Cathedral of the Immaculate Conception and the Battleship Alabama.

TOWNS IN THE MOBILE AREA

BAYOU LA BATRE

A picturesque fishing village only minutes from downtown Mobile, where even the City Hall is a shrimp boat! Founded in 1796, the French village is the scene on the last Sunday in July of the Blessing of the Shrimp Fleet.

FAIRHOPE

Just 18 miles from downtown Mobile on Mobile Bay Eastern Shore, a center of water-oriented sports and activities. The Art Colony on the Eastern Shore of Mobile Bay presents a week-long art exhibit, theater and dance programs, arts and crafts demonstrations.

THEODORE

Theodore is 17 miles west of Mobile, where the Charm Spot of the Deep South, Bellingrath Gardens, is located. Theodore also hosts the home of the Mobile Greyhound Park and the newly developed site of the Theodore Industrial Complex.

BEACH AREAS

DAUPHIN ISLAND

Dauphin Island has all the romantic allure of a subtropical island set like a gem in the blue Gulf of Mexico . . . yet you can drive to it on a toll free bridge and highway. It is 30 miles south of the city of Mobile and just 10 miles south of famous Bellingrath Gardens. The 18-mile island offers public and private beaches for picnicking, swimming and fishing. This is the site of Alabama's Deep Sea Fishing Rodeo held annually the third weekend in July. Charter boats for deep sea fishing are available and party boats take large groups to the red snapper banks on a regular schedule.

GULF SHORES

Gulf Shores is 50 miles southeast of Mobile. It's a thirty-two-mile stretch of the whitest, most beautiful beaches in the world.

FAIRHOPE MUNICIPAL PIER

Picnic area open to public, tables shaded by trees down to the beach. Snack shop and restaurant on the pier which extends 1,336 feet into the bay, including a modern marina. Swimming and fishing allowed from pier.

- **Gulf State Park**—Star Route, Box 9, Gulf Shores, Alabama 36542. Phone: 968-7544—6,000 acres on the Gulf of Mexico at Gulf Shores, Alabama in Baldwin County.

ATTRACTIONS IN MOBILE AND SURROUNDING AREAS

- **Battleship USS ALABAMA**—Battleship Parkway—Step into the turrets of 16'' guns . . . slip into the seats of 40mm anti-aircraft guns. This mighty battleship served in every major engagement in the Pacific and was enshrined through contributions of state citizens. **USS DRUM,** one of the most famous submarines of World War II, is anchored alongside and also open to the public. Open 8 a.m.—sunset. Adults, $2; children 6-11, 50¢, children under 6 free. Price includes admission to World War II submarine **DRUM.** Phone: 433-2703.
- **Bellingrath Gardens and Home**—Theodore, near Mobile—A masterpiece of symmetry and beauty, these world-famous gardens are radiant with various varieties of blossoms year around. Lovely home contains fine antiques, rare porcelain, china and silver. Bayous wind through the 65 acres, shaded by moss-hung oaks. Gardens open 7 a.m.—sunset. Adults $3.00; children, $1.50; children under 6, free. Home open 8:30 a.m.—5 p.m. daily. Admission $3.75. Last tour 4 p.m. Phone: 973-2217.
- **Fort Conde**—The City of Mobile's million dollar contribution to the Bicentennial, Fort Conde is a partially reconstructed 1724-35 French fort. Staffed with soldiers in French period uniforms, Fort Conde also features workable reproductions of 1740's naval cannon, muskets and other arms. A museum inside the courtyard houses artifacts from archaeological investigations at the site. Areas of the fort are furnished as original officers and enlisted men's quarters, artillery and general stores. Located at Church and Royal Streets. Owned and operated by the City of Mobile. Open 9 a.m. to 5 p.m., seven days a week. Adults $2.00, senior citizens and children $1.00. Phone 438-7304.
- **Fort Conde Village**—Four square block historic district off Royal Street just south of Fort Conde. Bricked streets and sidewalks, gas lights add to atmosphere in area of restored 19th Century homes and commercial buildings. Shops and variety of attractions. Fort Conde Village first opened in late 1976 and is still developing. Entrance to all shops free. Hours vary. Some shops open on Sunday. Arts and crafts shows, market day celebrations held periodically throughout the year. For more information call Atchison's 1890 General Store, 433-7847.
- **Fort Conde-Charlotte House**—Stands as an impressive link between the present and Mobile's earliest history. It was built in 1822-24 as the city's first official jail between the south bastions of old Fort Conde. It is now a fascinating house museum furnished to depict the periods of Mobile's history under five flags.

  Open Tuesday thru Saturday—10 a.m.—4 p.m. Sunday by appointment only. House telephone 432-4722. Adults $1.50—Children 50¢.

- **Fort Gaines and Confederate Museum**—Located on Dauphin Island, this fort overlooks the entrance to Mobile Bay and is directly across from Fort Morgan on the opposite side of the entrance. Open year round 8 a.m.—sunset. Admission $1.00.
- **Fort Morgan**—This star-shaped fort located on Gulf Shores was built in the 1820s and was a stronghold during the War Between the States. The museum there is a replica of the site's first fort, Bowyer. Here is where Admiral Farragut commanded, "Damn the torpedoes, full speed ahead!" and won the Battle of Mobile Bay. The ironclad warship Tecumseh lies buried in the sand beneath a buoy right out from the fort.
- **Malbis Greek Orthodox Church**—Malbis Plantation, near Mobile was completed a few years ago. The unusual and elaborate church is the jewel of the empire founded in 1906 by Jason Malbis, Greek Orthodox priest, and a Greek Colony. Open 9-12 a.m., 2-5 p.m. daily. Free. Hwy. 59.
- **Oakleigh Period House Museum**—Mobile's official antebellum mansion, this fine plantation home is furnished in antiques and houses local museum pieces, including extensive memorabilia of Mardi Gras. Beautiful grounds blaze with azaleas during season. Open 10 a.m.-4 p.m., weekdays; 2-4 p.m. on Sundays. Adults $2.00; students thru high school $1.00; children 6-12, 50¢. Group rates by arrangements. Phone: 432-1281.
- **Richards-DAR House**—This handsome historic home, a Town House of the Italianate style, tells in superb architectural detail of

fashionable life during this story-swept period. Neo-classic figurines of the Four Seasons are caught in a Renaissance design of arabesques and scrolls. The ornate 9-section cast iron fence affords an elegant privacy to house and garden. Located in Historic DeTonti Square, 256 North Joachim St. Open every day but Monday 10 a.m. to 4 p.m., Sunday 1 p.m. to 4 p.m. Donation: $1.00 Adults; 50¢ Children.

Sightseeing Tours

- **VELMA CROOM GUIDE SERVICE**
  A specialized service for visitors out of state tours and convention groups. A guide-lecturer can be put on your bus or in your private car for standard or custom tours. Visit magnificent ante-bellum homes, churches, gardens, museums and all points of interest. By appointment only. Call 432-1146. Address: 1001 Augusta Street, Mobile, Alabama 36604.
- **GRAY LINE TOUR SERVICE**
  Gray Line offers three tours a day. See Bellingrath Gardens, Charm Spot of the Deep South. Historic Old Mobile is a step into the past. Enjoy the unique architecture of many homes and churches in this colorful old waterfront city. Visit Battleship Alabama Memorial Park and USS ALABAMA and Submarine USS DRUM. For reservations call, 432-2229.
- **J & S TOURS**
  Enjoy Alabama's natural, historic, scenic, and recreational attractions. Call 344-2956. Address: 1714 Dover St., Mobile, Alabama 36608.
- **SERENDIPITY SOUTH TOURS**
  67 Byrnes Blvd., Mobile, Alabama 36608, 342-9308. Serendipity offers creative and artistic "In Hotel" programs, theme parties, luncheons, banquets, and party decorating services. Their service also includes half or full day custom tours and transportation needs. They present Mobile with a flare . . . Everything from the expected to the unexpected!

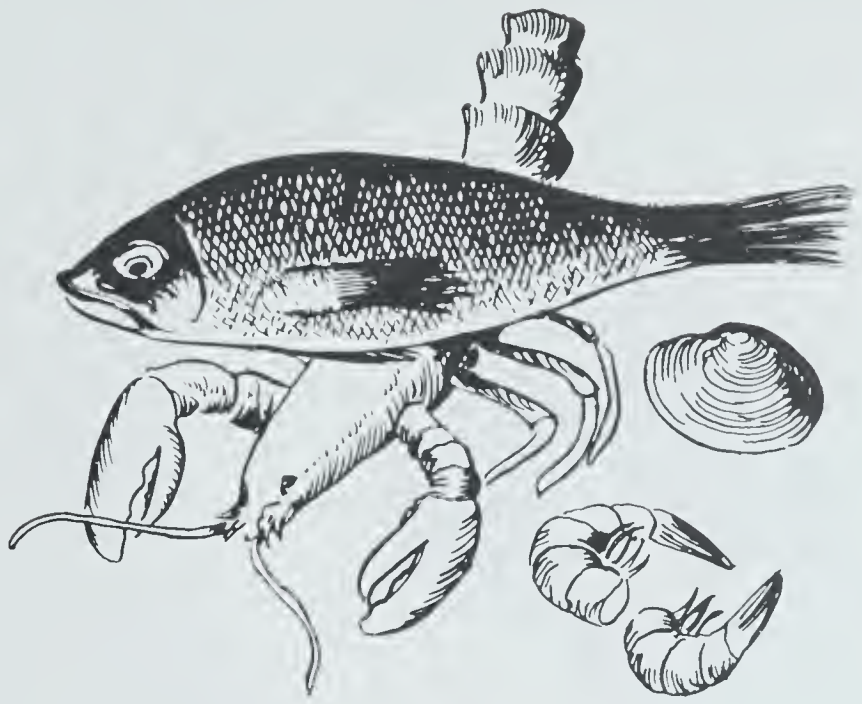
MUSEUMS AND ART GALLERIES

- **CITY MUSEUMS**
  1. Phoenix Fire Museum—The fire museum of the City of Mobile occupies the home station house of the Phoenix Steam Fire Company No. 6, which was organized in 1838. The handsome building was erected in 1859, and stands at the corner of Claiborne and Monroe Streets, just east of the Municipal Auditorium Complex. The collections housed in the museum pertain to the history of firefighting in Mobile since 1819. Admission is free. Open Tuesday thru Saturday, 10 a.m.-5 p.m. Sunday 1-5 p.m.
- **2. Carlen House Museum**—The Carlen House is an important representation of Mobile's unique contribution to American regional architecture. A fine example of the "Creole cottage" as it evolved from the French colonial form and was adapted for early American use, this house is the only one of its style publicly preserved and maintained in Mobile. Admission is free. Open Tuesday thru Saturday, 10 a.m.-5 p.m. Sunday, 1-5 p.m. Located on Murphy High School Campus on High School Drive.
- **3. Museum of the City of Mobile**—355 Government Street. The museum occupies an 1872 mansion which was once the home of a mayor of the city. The interior preserves the original elegance of the house, with marble mantels, bronze d'ore chandeliers, and elaborate plaster work. Collections on display include important original portraits of explorers and colonizers, furniture, silver, arms, ship models, costumes, maps and historical documents. Guided tours are available upon request. Open Tuesday thru Saturday, 10 a.m.-5 p.m. Sunday, 1-5 p.m. Closed Monday.
- **VINTAGE MOTOR MUSEUM**
  850 Government Street. The museum is an antique furniture showroom where most items are for sale. A feature attraction of the museum is a 1908 Model "S" Ford Roadster from a private collection which is one of the earliest and rarest cars in the country. Other automobiles from private collections will be on display from time to time.
- **MOBILE MUNICIPAL ART GALLERY AND MUSEUM**
  Open Tuesday thru Saturday 10 a.m.-4:45 p.m.; Sunday Noon-4:45 p.m. Located in Langan Park on Forest Hill Drive and Ziegler Blvd., in Spring Hill. No admission charged.
- **PATIO ART GALLERY**
  The Patio Gallery serves as a picture gallery and sales outlet for the works of local artists, as well as a gift shop. The house was one of Mobile's first telegraph stations used soon after 1847, when telegraph wires were laid in the city. Open Monday thru Friday, 10 a.m.-4 p.m. 303 Auditorium Drive, east of Municipal Auditorium.

MOBILE AREA RESTAURANTS

Mobile specializes in good dining of every variety. No matter what your taste in food, Mobile will please you.

- **BACK PORCH**
  200 S. Royal/432-5873. Specializes in Southern Red Beans and Rice and Sausage. Open Mon.-Sat. 9 a.m.—4 p.m.
- **BAYLEY'S SEAFOOD RESTAURANT**
  Located on Dauphin Island Parkway/973-2295. Enter through the kitchen which is always open for tours. Home of the original West Indies Salad and Crab Claws. Family restaurant. Moderate prices. Open: 12 noon—10 p.m.
- **BAILEY'S SUPERETTE**
  406 Summerville Street/473-6738.
- **BEN'S PIT BAR B-Q**
  Located on Battleship Parkway/626-1382. Specializes in Bar B-Q and Seafood. Mellow setting. Family restaurant. Open: 8 a.m.—11 p.m.
- **BERNARD'S MOONGATE HOUSE**
  407 Conti Street/432-5176.
- **BOJANGLE'S**
  Located at 260 Azalea Rd./344-1411. Flaming Hurricanes and Fine Foods featuring Victorian Bar 2 for 1 Happy Hour 5-7 o'clock. Sunday thru Thursday 11 a.m. to 2 a.m., Friday and Saturday, 11 a.m.—3 a.m.
- **BONANZA SIRLOIN PIT**
  Located at 3821 Airport Blvd./344-0444 and 6330 Highway 90 West in Tillmans Corner. Specializes in Steak. Western atmosphere. Cafeteria line. Family restaurant. Open: 11 a.m.—9 p.m.
- **BURKE'S SEAFOOD RESTAURANTS**
  Two locations: 2503 Government Blvd./471-4402; 260 North Craft Hwy.—Chickasaw/457-0616.Specializes in Seafood. Seafood motif. Family restaurant. Moderate prices. Open: 6 a.m.—10 p.m./Mobile; 11 a.m.—9 p.m./Chickasaw.
- **CAP'T DEES**
  3050 Springhill Plaza/476-0810. Specialize in seafood. Casual dress, warm atmosphere. Open 10:45 a.m. to 10:00 p.m. Sunday-Thursday, 10:45 a.m. to 11:00 p.m. Friday and Saturday.
- **CAPTAIN'S TABLE**
  2701 Battleship Pkwy. in the Quality Inn/432-2703.
- **CATALINA SEAFOOD**
  Located at 450 Azalea Rd./342-1501. Specialty—Seafood. Warm friendly atmosphere. Casual dress. Family restaurant. Moderate prices. Open: 11 a.m.—9 p.m. Also located at Coden, Alabama.
- **CHINESE PALACE**
  Located at 309 Bel Air Blvd./478-8465. Specializes in Chinese and American food. Oriental decor. Family restaurant. Moderate prices. Open: 11 a.m.—11 p.m.
- **COACHMAN RESTAURANT & BAR**
  456 Auditorium Drive/432-1493.
- **CONSTANTINE'S**
  Located 1500 Government St. in the Rodeway Inn/471-3375 and 271 Azalea Road at Airport/343-0600. Specializes in Seafood and Prime Rib. Elegant surroundings. Family restaurant. Open: 6 a.m.—11:00 p.m.
- **CORK 'N CLEAVER RESTAURANT**
  4019 Airport Blvd./342-7365. Specialize in Steak. Mon.-Thurs. 5:30-11:00; Fri. and Sat. 5:30-12. Sunday 5-10 p.m. Lunch Mon.-Fri. 11:30-2:00.
- **CRISPY CHICK**
  Locations at Tillman's Corner, Eight Mile, Airport and Schillinger, Cottage Hill, McGregor, Grand Bay, Saraland, University/Old Shell,



RANDOLPH'S SEAFOOD RESTAURANTS

"DAUPHIN ISLAND STYLE COOKING"

For Your Dining Pleasure Open . . . .
SUN-THUR 11 A.M. - 10 P.M.
FRI & SAT 11 A.M. - 11 P.M.

FRIED — BROILED — STEAMED SEAFOOD

• *World Renown* •
TOM DECKER
At the Keyboard
Wed.-Sat., 6-10

PRIVATE PARTIES

VISA

RESERVATIONS ACCEPTED

Hwy 90 West of I-10 653-9339
Overlooking the Bay 479-6690



Tail of whipworm
(Trichuris trichiura)

Vermox®: the only anthelmintic highly effective against whipworm.

	Cure Rate	Egg Reduction
VERMOX®	68%*	93%**
Mintezol[1]	35%†	45%††
Antiminth[2]	Not Indicated	
Povan[3]	Not Indicated	

Also highly effective against roundworm and hookworm

Since whipworm, roundworm and hookworm are all soil-borne helminths, mixed infections are not uncommon. Only one anthelmintic exhibits high efficacy rates for all three nematodes: whipworm—68%; roundworm—98%; hookworm—96%. That agent is VERMOX®.

Please see following page for Summary of Prescribing Information.

Broad-spectrum coverage in mixed helminthic infections

Vermox® TABLETS
(mebendazole)

JANSSEN PHARMACEUTICA INC.
New Brunswick, N.J. 08903

Committed to research...
because so much remains to be done.

© Janssen Pharmaceutica Inc. 1980

JPI-023



Broad-spectrum coverage in mixed helminthic infections

TABLETS
Vermox®
(mebendazole)

Contraindications VERMOX is contraindicated in pregnant women (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

Precautions PREGNANCY: VERMOX has shown embryotoxic and teratogenic activity in pregnant rats at single oral doses as low as 10 mg/kg. Since VERMOX may have a risk of producing fetal damage if administered during pregnancy, it is contraindicated in pregnant women.

PEDIATRIC USE: The drug has not been extensively studied in children under two years; therefore, in the treatment of children under two years the relative benefit/risk should be considered.

Adverse Reactions Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.

Dosage and Administration The same dosage schedule applies to children and adults. The tablet may be chewed, swallowed or crushed and mixed with food. For the control of pinworm (enterobiasis), a single tablet is administered orally, one time.

For the control of roundworm (ascariasis), whipworm (trichuriasis), and hookworm infection, one tablet of VERMOX is administered, orally, morning and evening, on three consecutive days.

If the patient is not cured three weeks after treatment, a second course of treatment is advised. No special procedures, such as fasting or purging, are required.

* Mean cure rate of VERMOX® in treating whipworm; cure rate range of 61-75%. Data on file at Janssen Pharmaceutica Inc.

** Mean egg reduction of VERMOX® in treating whipworm; egg reduction range of 70-99%. Data on file at Janssen Pharmaceutica Inc.

† Rollo, I.M.: Drugs used in the chemotherapy of helminthiasis, in Goodman, L.S.; and Gilman, A. (eds.): *The Pharmacological Basis of Therapeutics*, ed. 5. New York, Macmillan, 1975, p. 1034.

†† Miller, M.J.; Krupp, I.M.; Little, M.D.; Santos, C.: Mebendazole an effective anthelmintic for trichuriasis and enterobiasis. *JAMA* 230 (10): 1412-1414, Dec. 9, 1974.

1. Registered trademark of Merck Sharp and Dohme.
2. Registered trademark of Roerig.
3. Registered trademark of Parke-Davis.

JANSSEN PHARMACEUTICA INC.
New Brunswick, N.J. 08903

Committed to research...
because so much remains to be done.

Broad Street. Specialty is Southern Fried Chicken and Old Fashioned Hamburgers, Catering Service. Fast, efficient service. Bright, cheerful, pleasant decor. Mobile based chain. Open: 10:30 a.m.—9:00 p.m.

- **T. P. CROCKMIER'S**
  170 S. Florida Street/476-1890.

- **DON Q SEAFOOD**
  3500 Dauphin Island Parkway/473-7457.

- **EIGHT KINGS RESTAURANT PUB & OYSTER BAR**
  Located at 3209 Bel Air Mall/471-4396. Specialty is Oysters on the half shell, live Maine Lobster and Roast Prime Rib of Beef. Continental European decor. Family restaurant. Moderate prices. Open: 11 a.m.—11 p.m. The Mikado Room, Mobile's only Japanese Steakhouse. Serving by reservations.

- **EL PALACIO OF MEXICAN FOODS**
  4401 Old Shell Rd./344-1144. Specializes in Mexican food with Mexican atmosphere to match. Family restaurant. Moderate prices. Open: 11 a.m.—2 p.m. and 5 p.m.—10 p.m.

- **FLETCHER'S BAR-B-Q**
  Located at 1503 Government Blvd./478-7056. Specializes in Bar B-Q; Ribs, Chicken and Sandwiches. Friendly family restaurant. Moderate prices. Open: 11 a.m.—9 p.m.

- **FREEMAN'S WAFFLE HAUS**
- 220 N. Craft Hwy., Chickasaw/457-9470
- 1551 Springhill Ave./432-1362
- 2151 Old Shell Rd./473-9420

- **CONSTANTINE'S GASLITE SQUARE**
  271 Azalea Rd./343-0600. Specializes in a variety of foods. Mon.-Thurs. 11:30 a.m.—10:00 p.m. Fri. and Sat. 11:30 a.m.—11:00 p.m. Sun. 11:30 a.m.—3:00 p.m.

HART'S FRIED CHICKEN
- 830 Dauphin Island Parkway/471-5788
- 929 Wilson Ave./457-5238
- 2662 Springhall Ave./479-5972

- **HOUSE OF CHIN**
  Located at 3700 Airport Blvd./342-5221. Specializes in Chinese and American food. Oriental setting of Chinese design. Moderate prices. Family restaurant. Open: 11 a.m.—10 p.m.

- **THE HUNGRY RANCHER**
  Located at 4125 Moffat Rd./344-9741. Specializes in all foods. Home cooked meals. Relaxed family atmosphere. Open 6 a.m.—11 p.m.

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900 Hillcrest Rd./343-4145. Specialize in fresh water catfish (all you can eat). Open: 5 p.m.—10 p.m. daily. 11 a.m.—9 p.m. Sunday.

- **INTERNATIONAL HOUSE OF PANCAKES**
  Located at 3912 Airport Blvd./344-2818. Specializes in pancakes and a variety of foods. The International theme is displayed throughout the entire restaurant. Family restaurant. Open: 24 hours a day.

- **JO-JOS**
  812 Beltline Hwy./344-8638. Try the best omelets around. Open 24 hours a day, seven days a week.

- **JOLLY OX**
  Located at 3106 Airport Blvd./479-8593. Relax in the glow of a cozy fireside, surrounded by the roustic atmosphere of an Old English Inn. Family restaurant. Open: 11:30 a.m.—11 p.m.

- **KORBET'S RESTAURANT**
  Located at 2029 Airport Blvd. at Hwy. 90/473-3578. Specializes in Steak and Seafood. One of Mobile's favorite family restaurants. Reasonable prices. Open: 7 a.m.—12 midnight.

KRISPY KREME DOUGHNUT
- 408 Dauphin Island Parkway/479-5466
- 1354 Government St./432-5559
- 3042 Springhill Ave./478-4588
- Hwy. 90 West at Azalea Rd./666-4911

- **LaBOHEME**
  4363 Old Shell Rd./343-7401. Featuring Superlative Crepes and other French Cuisine. Lunch 11:30 a.m.—2:30 p.m. Dinner 5:30 until—. Open Saturday from 5:30.

- **LeCHATEAU**
  168 S. Beltline Hwy./343-4752. Great Steaks. Specialize in Prime Rib and Lobster Tail. Mon.-Fri. 4-7 Happy Hour. Open Monday-Friday 11:30 to 5 for Lunch, Dinner 5-10:30. Sunday 5-9:30.

- **LUM'S RESTAURANT**
  Located 3156 Airport Blvd./478-7212. Specialize steaks and seafood. Reasonable prices. Open: 6 a.m.—1 a.m.

- **THE MARINA RESTAURANT AND LOUNGE**
  Located on Dog River at the end of Rock Point Road/479-2855. Home of the world famous crab claws. Daily 2 p.m. 'til. Saturday and Sunday 5 p.m. 'til.

- **MR. STEAK**
  Located at 2518 Government Blvd./479-7740. Specializes in Steak. Comfortable contemporary atmosphere. Family restaurant. Moderate prices. Open: 11 a.m.—10 p.m.

PIZZA HUT
- 762 Downtowner Loop W./343-1300
- 1421 Forrest Hill Dr./343-0063
- 2551 Government Blvd./479-7238
- 3450 Demetropolis id./666-4201
- 3766 Airport Blvd./344-4704
  12 Hwy. 43, Saraland/675-0880

- **POPEYES FAMOUS FRIED CHICKEN**
  750 Government Street/438-4344.
  4009 Airport Blvd./343-5580.

- **THE PRINCESS HOUSE**
  254 Government St./432-2238
  Open 24 hours. Located next to Best Western Admiral Semmes Motel and across from the Sheraton. Specialize in Steaks and Seafoods.

- **RED LOBSTER RESTAURANT**
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- **REVERE'S SUPER CLUB**
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- **ROUSSOS ANCIENT MARINER RESTAURANT**
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3649 Airport Blvd./343-6003. Specialize in Prime Rib and King Crab. Enjoy an evening with great food and Disco dancing. Open: Mon-Fri. 11:30 for Lunch. Open: Mon.-Sat. 5 'til.

- **SOUTH CHINA RESTAURANT**
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- **THAT PIZZA PLACE**
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- **THE PILLARS**
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- **FILIPPO'S VILLA**
  Located 1862 Government St./478-4200. Specializes in Italian Cuisine and Steaks. Old world atmosphere. Reasonable prices. Open: 11 a.m.—12 midnight.

- **PORT OF MOBILE**
  Located at 400 Bel Air Blvd./479-4576. Family restaurant, reasonable prices. Open: 11 a.m.—2 p.m. lunch. Dinner 5-10 p.m. Bar open until 2 a.m.

- **TRINITY'S**
  456 Auditorium Drive/433-6041. Great, quick sandwiches for lunch or great steaks for dinner. Open: Mon.-Fri. 11:30 'til . . . Sat. 6 'til . . . Happy Hour daily 4-7 p.m. and 12-1 a.m.

- **VILLAGE INN PANCAKE HOUSE**
  Two convenient locations: 2765 Government Blvd./478-5289; 364 Azalea Road/343-6784. Specializes in Pancakes. Family prices. Open: 6 a.m.—12 midnight.

- **WESTERN SIZZLIN STEAK HOUSE**
  1111 Government Street/432-4056
  4628 Airport Blvd./343-2233
  7210 Hwy. 90 West and I-10/666-8996. Sizzling Steaks a specialty. Family prices. Open: 11 a.m.—10 p.m.

- **WHATABURGER**
  2461 Government Blvd./478-1205

WIDEMIRE'S OLD DUTCH ICE CREAM SHOPPES
- 2511 Old Shell Rd./471-1710
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- **WINTZELL'S OYSTER HOUSE**
  Located at 605 Dauphin St./433-1004. Famous for their "Fried, Stewed and Nude" Oysters. Visit the house of over 8000 quotes. Moderate prices and fun for all. Open: 11 a.m.—9:45 p.m.

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- 5601 Old Shell Rd.
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- **SPRINGDALE MALL**
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- **DOWNTOWN SHOPPING AREA**
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DeTONTI SQUARE

DeTonti Square Historic District was created by Municipal Ordinance in 1962 and takes its name from the French explorer Henri de Tonti.

Title to the entire DeTonti Square district originated with a grant of land in 1789 to the Indian interpreter, Thomas Price from the Crown of Spain. Antique gas lights, imported from London and Paris, enhance the charm of the District. There are more gas lights in use in Mobile today than during the gas light era.

THE UNQUIET GRAVE OF DR. NOTT

By William H. McDonald

When Josiah Clark Nott, M.D., died March 31, 1873, in Mobile, hardly anyone thought it notable that the giant of 19th Century medicine had made his exit on his 69th birthday.

After all, Dr. Nott had a well-known flair for the dramatic.

Yet, a century after his death, he remains such a towering and controversial figure in American science and letters that his true niche was a subject of sharp debate in a recent New York Academy of Medicine Centennial symposium on his life and work.

The record of that symposium, published in the **Bulletin** of the Academy for April 1974, is evidence enough that Dr. Nott is still attracting more than his share of bouquets and brickbats. And he would have loved that, believing as he obviously did that a man is more often measured by the enemies he makes than by his friends.

An accomplished surgeon of his day, a founder of the Mobile County Medical Society in 1841 and the Medical College of Alabama in 1859, Dr. Nott was also first to suspect the mosquito as the vector in yellow fever, a disease that had wrought havoc in Mobile and wiped out four of his own children in a single week in 1853.

One of the more prolific writers in the state's history, Dr. Nott was seldom at a loss for an opinion on a great variety of subjects. Having delivered himself of his judgments, he often left the field to others, moving on to new skirmishes.

He plainly delighted in controversy and had the personal courage to tell anyone where to head in, including the Commanding General of a Reconstruction unit in Mobile after the Civil War.

Sooner than see his beloved medical school put to a purpose he considered idiotic, the frail Doctor told the redoubtable General, he would see it burned to the ground. He remained unreconstructed.

In 1848, to the hoots and howls of the medical fraternity, he brazenly suggested that insects carried the "animalcules" of yellow fever. This was a time when the dominant conventional wisdom was that the "Black Vomit" was transmitted by mephitic gases or miasma, although there were those who held that the etiology was somehow in ship's timbers molecularly transformed by the tropical sun en route to Mobile's port.

Even the sainted Dr. Jerome Cochran, Alabama's first state health officer and a polemic stylist in his own right, was among those casting stones at his fellow townsman. Dr. Cochran wrote of one of Dr. Nott's yellow fever papers published in New York that ". . . he gives neither facts nor other reasons in support of his. . . dogmatic assertion. . ."

Dr. Nott could scarcely concern himself with this unfriendly whiff of grapeshot from the rear, since the cannonading from the Capitals of the East held much of his attention in other battles he had chosen to join.

He delighted in waging war on several fronts at once. And usually he was under attack with equal fury from previous ideological foes, as when he raised the hackles of abolitionists and slavery apologists alike with such "ethnological" treatises as *The Connection Between Biblical and Physical History of Man* (1849), *Indigenous Races of the Earth* (1857), and *Types of Mankind* (1854).

The last was widely popular, going through at least 10 editions by 1871. Since Dr. Nott wore no man's hat, and bent the knee to no established creed or dogma, his outraged critics of all persuasions were legion. His ideas shocked the more pompous theologians of the day, including the Rev. John Bachman of South Carolina, who publicly snorted that the last named book, a massive tome, might be more appropriately titled, *Types of Infidelity.*

After a reviewer in a national religious publication suggested sarcastically that Dr. Nott write a sequel on *The Types of Dogkind,* the dauntless doctor did just that: his paper, *A Natural History of Dogs,* purporting to be an examination of the dog's role in history, appeared in the *New Orleans Medical and Surgical Journal in* 1858.

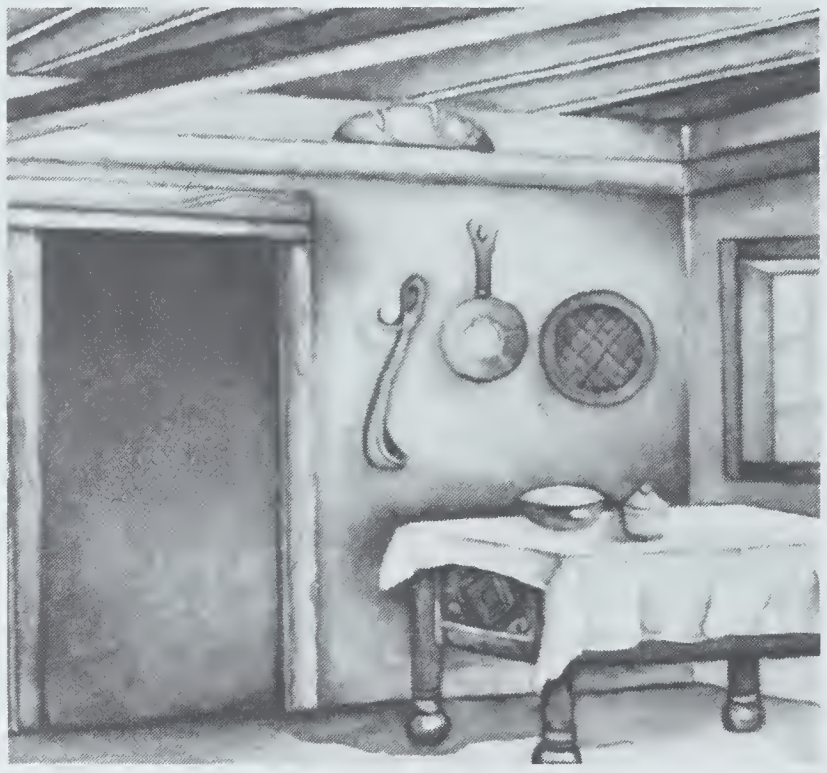
Since there is no compelling evidence that Dr. Nott had undertaken any serious study of dogs, this treatise is arguably a hoax, an ingenious parody of scholarship itself, which the imperious Dr. Nott did not seem to regard highly when practiced by others than himself.

What kind of man was Dr. Nott? He won a split decision in the New York Academy retrospective of 1974, with these conflicting views on his wisdom and humanity:

C. Loring Brace, Ph.D., Museum of Anthropology, the University of Michigan: ". . . Josiah Clark Nott was

Yesterday's Folk Remedy:

A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]



Today's Tradition:

Tegopen®

(cloxacillin sodium)

for the treatment* of known or suspected staphylococcal infections such as:

- Acute sinusitis
- Furunculosis and carbuncles
- Impetigo
- Secondarily infected dermatitis
- Cellulitis
- Abscesses
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In serious, deep-seated staph infections, 500 mg q.i.d. dosage is recommended.†

- Tegopen has been reported active against 96% of *Staphylococcus aureus*.[2]
- 80% of *S aureus* has been reported resistant to amoxicillin and ampicillin.‡[2]
- 88% of *S aureus* has been reported resistant to penicillins G and V.‡[2]
- Staph resistance to erythromycin may develop during a course of therapy.[3]



Available as 500-mg and 250-mg capsules and Oral Solution 125 mg/5 ml.

Tegopen® (cloxacillin sodium)
Today's Penicillin for Today's Physician

1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on an adjoining page.

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy.

‡Not all isolates may have been tested using both discs.

Tegopen®
(cloxacillin sodium)
Capsules and Oral Solution

Brief Summary of Prescribing Information

For complete information, consult Official Package Circular
(12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

SUPPLIED:

Capsules—250 mg. in bottles of 100. 500 mg. in bottles of 100.
Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

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neither an ethnologist nor a scientist. . . The lip service he gave to science was mainly camouflage to cover the racist advocacy that lay beneath. . . The truth he sought to advance. . . is nothing less than. . . blatant, self-satisfied, racial prejudice. [The essence of his bigotry] has been the cause of death and misery for literally millions of people."

Wilbur G. Downs, M.D., Clinical Professor of Epidemiology, Yale University School of Medicine: A brilliant conceptual scientific thinker whose yellow fever transmission hypothesis "preceded by three decades the demonstration by Mason in 1878 of the role of the mosquito in the transmission of *Wuchereria bancrofti,* the filarial worm responsible for Bancroftian filariasis. . .," a man whose concept was 50 years ahead of Walter Reed, but whose theory was not finally confirmed until Stokes, Bauer and Hudson isolated the yellow fever virus (the insect-borne "animalcule" Nott had hypothecated) in 1928.

Dr. Nott was a remarkable man—scientist, thinker, surgeon, despicable racist to Northerners, benefactor of poor blacks to Southerners.

As a symbol of his times, the brilliant, gentle yet combative Dr. Nott was a man of personal triumph and tragedy. His story tells much of the difficult but intellectually inspired history and prehistory of MASA.

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JOSIAH CLARK NOTT

EMMETT B. CARMICHAEL*

The founder of the Medical College of Alabama, Josiah Clark Nott, was born on March 31, 1804 at Columbia, South Carolina. His father, Hon. Abraham Nott, was a Judge of the Court of Appeals and was elected to the United States Congress in 1800. The maiden name of Josiah's mother was Mitchell. Dr. Josiah Clark Nott had three sisters and four brothers and at least three of Josiah's brothers became well known: (1) Professor Henry Junius Nott was a writer, a brilliant man, who, at the age of 40 perished in the disastrous wreck of the steamship **Home** in 1837 when returning from New York, whither he had been sent to make additions to the University of South Carolina Library. (2) Dr. Gustavus Adolphus Nott, M.D., was Professor of Anatomy at the Medical College of Louisiana from 1840 to 1841 and Professor and Materia Medica and Therapeutics from 1848-67, serving also as Dean from 1849-1852. And (3) Dr. James E. Nott, M.D., practiced medicine in Mobile.

Josiah attended South Carolina College and after graduating in 1824, he began the study of medicine in the office of Dr. James Davis of Columbia. In the winter of 1825-26, he attended the first course of lectures at the College of Physicians and Surgeons, New York City, where he came under the influence of Dr. Valentine Mott. A second course of lectures was taken at the University of Pennsylvania from which he graduated with the M.D. degree in 1827. He was an intern at the Philadelphia Alms House (Old Blockley) from September 1827 to September 1828. The next year was spent as a demonstrator of Anatomy under Professors Physick and Honner at the University of Pennsylvania.

In 1829 Dr. Josiah Clark Nott returned to his home town, Columbia, South Carolina, to practice medicine and after six years of practice, he went to Europe to improve his medical training. Much of the next year was spent in Paris, but he visited hospitals in several of the European countries and found time to study natural history and the related sciences.

On returning from Europe, in May, 1836, he settled in Mobile, Alabama, where he soon rose to the head of the profession in Alabama, and enjoyed a large and lucrative practice. Being a thorough anatomist, and having a great predilection for surgery, his reputation as a surgeon was soon established and especially so in the southern states. As a surgeon, he had no rival in the southwest except Warren Stone of New Orleans, and they were intimate friends throughout a long professional life, each recognizing and acknowledging the talents and worth of the other. Doctor Nott performed successfully all of the capital operations in surgery; originating some, improving the adopted procedure of others, and performing all with dexterity, boldness and astonishing self-reliance.

In 1848, Dr. Nott, Dr. George A. Ketchum, and others, established a private infirmary for Negro patients. It was known as Dr. J.C. Nott's Infirmary and continued to function until after the War Between the States.

Dr. Nott was a regular contributor to the medical literature from 1831 when he published his first work, an essay on leeches, which he appended to his translation of Goupil's book, *An Exposition of the Principles of the New Medical Doctrine*. Some sixty-eight papers which were written by Dr. Nott have been discovered and a list of these references is appended to this biographical sketch. Since Nott had a rather broad training we might have expected him to have had many interests in the practice of medicine and the variety of titles of his papers seem to bear out this concept. His published works include treatises on lithotomy, operation for cataract, endometritis, intra-uterine medication, bone and nerve surgery, several instruments which he devised, yellow fever, case reports and ethnology. From the above list of titles, it would seem that Dr. Nott was what we might consider as a general practitioner with a tendency to specialize in surgery and gynecology.

He even practiced obstetrics and no doubt one of his most famous deliveries was that of William Crawford Gorgas, on October 3, 1854 at Toulminville, near Mobile. William Crawford was the first child of Josiah and Amelia Gayle Gorgas. It is of especial interest to note that it was William Crawford Gorgas, a member of the Yellow Fever Commission to Cuba, who played no small part in the eradication of the mosquitoes which transmitted yellow fever. Because of Gorgas' persistence and sanitation methods, it was possible for the United States to build the Panama Canal. The above accomplishments are of particular interest since it was Josiah Clark Nott who has been given credit for being the first to suggest that insects could transmit yellow fever. Nott's new hypothesis was presented in a paper which appeared in the January 1848 issue of *The Charleston Medical Journal and Review* and also in the March 1848 issue of the *New Orleans Medical and Surgical Journal*. Nott presented his hypothesis after reviewing the peculiar features which characterized the transmission of yellow fever and expressed the opinion that its communicability could be best explained as due to insect transmission. He made the observation that the nighttime was especially dangerous in an infected region. The reason, Dr. Nott intimated, was that insects were especially active at night.

*Read at the Centennial Session of the Medical Association of Alabama, Birmingham, April 15, 1947.

Packard had this to say concerning Nott's insect hypothesis, "Unfortunately, this may be regarded as one of those 'guesses at the truth' which have so often preceded great discoveries." However, T.A. Cooke, in 1853 had this to say about Nott's hypothesis, "The animalcular origin of this disease is with marked ability presented and supported by Dr. Nott, in which doctrine I would willingly acquiesce, if its distinguished advocate would admit as invariable the foreign origin of the animalculae. I have long been inclined to the opinion that the time is fast approaching when most febrile diseases will be attributed, and justly, to a similar cause—to an animalcular origin."

Several years before Nott reported on yellow fever, he had operated and extirpated the os coccyx for neuralgia. Skene attributes to Nott the credit for first describing the condition of coccyxodynia. However, Nott's paper aroused practically no interest and the condition was not generally known until described and named by Sir James Y. Simpson, seventeen years later in 1861.

Although Dr. Nott was a leading surgeon, he found time to write numerous ethnological treaties. His best known works in this branch of science were (1) *The Connection between the Biblical and the Physical History of Man,* 1849, (2) *Physical History of the Jewish Race,* 1850, (3) *Indigenous Races of the Earth,* 1857 and (4) *Types of Mankind*, which was so popular that ten editions appeared by 1871. The last two works were written in collaboration with George R. Gliddon. These last two books were the first important American contributions to the science of ethnology and held a high place among anthropologists. Many of these authors' views have been rejected but there is little doubt that they were epoch-making contributions. Darwin's *Descent of Man* appeared in 1871 and this kind of evolution was familiar to Nott but he differed as to the starting point, for his *Types of Mankind* were really based upon separate centers of anthropoid creation.

The Editor of the *New Orleans Medical and Surgical Journal,* in commenting upon the receipt of the 1852 Proceedings of the Medical Association of the State of Alabama, had the following to say about the medical profession in Alabama.

All honor to Alabama! She has neither a medical college nor a medical journal, but her students are educated in the best schools of the country and her physicians enrich the pages of the medical journals of both North and South."

These comments were not only appropriate for Dr. Nott but also for his contemporary practitioners in Alabama, that great group of physicians and surgeons which included J. Marion Sims, W. O. Baldwin, N. Bozeman, W. H. Anderson, W. M. Boling, A. Lopez, R. F. Michel, S. D. Seelye, and J. S. Weatherly; the first two having been honored with the Presidency of the American Medical Association and the last six with the Vice-Presidency of the same organization.

It was chiefly through Nott's influence and activities that the first charter of incorporation of the "Medical College of Alabama" was obtained from the General Assembly of the State in 1856. The State Legislature failed to provide funds to carry out the provisions of this charter so it was allowed to expire by its own limitation.

In 1857, 21 years after settling in Mobile, Dr. Nott accepted a call to the chair of Anatomy in the University of Louisiana (since 1884, The Tulane School of Medicine). His stay in New Orleans was for only one year and he returned to Mobile to resume the practice of Surgery and Medicine. Fully convinced as he had been of the many advantages that would result from the existence of a good medical school in Alabama, and especially in Mobile, his experiences and observations while teaching in New Orleans served but to emphasize and confirm him in his original purpose. So in 1858, Dr. Nott and several friends made plans to establish a medical college in Mobile. The citizens of the city were interested and subscribed about seventy-five thousand dollars for the purchase of a museum and chemical apparatus.

The Medical College was organized and Dr. Nott was appointed to the chair of Surgery and commissioned to go to Europe during the summer of 1859 to collect a library and the necessary physiological and anatomical preparations for the museum. While in Europe on the above mission, Dr. Nott sent a letter from Paris to the Editor of the *Mobile Register* on July 15th, 1859 and another letter from London to the Editor of the *New Orleans Medical and Surgical Journal* on September 27, 1859. These letters explain in some detail in what cities and from which artists Dr. Nott purchased museum pieces for the different departments.

The Medical College of Alabama, under a charter granted by the Probate Court of Mobile County, was opened in a rented building on Monday, November 14, 1859. Since the appointments were not suited for medical instruction, Dr. Josiah C. Nott decided to go before the State Legislature for aid. And in 1860, the General Assembly of the State granted another charter and this time also appropriated fifty thousand dollars to erect a medical building. The Medical College was closed after two sessions due to the War Between the States. In a letter to the Editor of the *Mobile Weekly Advertiser,* which was published on September 3, 1865, Dr. Nott requested him to announce that the Medical College would not open that winter. In explanation, he stated that the institution had been taken over by Freedman's Bureau and appropriated to the purpose of a negro school soon after United States troops had taken possession of the town. The Chemistry Department was still occupied by a negro cobbler and a great number of the most beautiful and costly models and anatomical preparations had been taken off by those in possession. The Medical College was not opened again until 1868, when twenty-two students reported for study. That Dr. Nott continued his interest in the Medical College of Alabama

even though he had moved from Mobile, is indicated by the following quotation which was taken from the catalogues of the Medical College for the sessions 1871-72 and 1872-73: "As usual in past years, valuable prizes will be awarded to meritorious students. The Nott Medal, valued at one hundred dollars will be given to the first graduate."

The *Official Records of the Union and Confederate Armies, War of the Rebellion,* contains two references to Dr. Josiah C. Nott. The first of these was in a letter from Corinth, Mississippi on April 30, 1862 and the second was in a letter from Tupelo, Mississippi on July 17, 1862. Surgeon Nott was a medical inspector in General Braxton Bragg's second corps, Army of Mississippi and was connected with the Military Service during the whole period of the war.

After the war was over, Dr. Nott returned to Mobile to resume his practice but due to the long summers, he decided to move to Baltimore in 1867. In his new location, he had sufficient leisure to specialize in the surgical portion of gynecology and after he had mastered it sufficiently he moved to New York City, in April 1868. Here he was received by the first members of the profession with open arms and through his industry and skill, and the good-will of his professional brethren, he acquired a large practice in his newly adopted field of surgery.

The Mobile Medical Society was organized on June 12, 1841 in the office of Drs. Fearn and J.C. Nott. Dr. G. A. Nott, brother of Josiah, was one of the 27 physicians in the new organization. Dr. Josiah Nott read a set of nine resolutions concerning the proposed society. Apparently, Dr. Josiah Nott did not take an active interest in either the State Medical Association or the American Medical Association but he was elected an honorary member of the former organization, on March 4, 1868 at the organization meeting. However, Dr. Nott took an active interest in the New York Obstetrical Society and served as Vice-President and President of the organization.

In 1832, Dr. Nott was married to Sarah Chestnut Deas, native of Camden, Alabama and daughter of Col. James S. Deas, of South Carolina. To this union, eight children were born, and four of them died within six days during the yellow fever epidemic of 1853. Two sons were lost in the War: (1)Captain J. Deas Nott was killed on September 25, 1863 while leading a charge at the battle of Chickamauga and (2) Lt. Henry Junius Nott, M.D., who had received the A.B. degree from South Carolina College in 1857, died at Shiloh on May 8, 1862 on the battle field from exposure and fatigue. One child died in early childhood while the family was on a visit to Europe and only one son, J.C. Nott, Jr., survived his father. Mrs. Josiah Clark Nott returned to her New York home after Dr. Nott's death and died there on April 17, 1883.

A sketch of this type is not complete without mention of Dr. Nott's personal appearance, health, habits and religious character. He was tall and thin, over six feet in height and weighed about one hundred and forty pounds. His stature was erect. His head was large and his forehead was high and his face was strongly marked and noble in expression. His health was never robust, but his habits were so plain and simple, that he was enabled to do a vast amount of work without becoming exhausted. During some seven or eight epidemics of yellow fever in Mobile, he was riding day and night for two months at a time and yet preserved his health and spirits.

In social life, Doctor Nott's personal charm influenced every circle that he entered. Most of the distinguished strangers who visited Mobile were entertained in his home. His natural disposition was gay and lively, and he always had a large fund of appropriate anecdotes suited to the circumstances of the occasion. However, his chief relaxation was at his home in the midst of his family.

Dr. Nott was not a member of any Christian denomination but he was very far from being an irreligious man. He, however, believed that the New Testament was written under inspiration. His ideas on religion were confused and he was never disposed to argue about it; but he had the highest respect for all who conscientiously believed in the Christian Faith, and at the same time practiced what they believed.

Dr. Nott's stay in New York was for only a few years since the northern winters were too severe for him. His lungs, always weak, became involved and he was satisfied that he would soon fall victim to consumption if he did not change his residence. In the early fall of 1872, he moved to Aiken, South Carolina but not improving as he had hoped, moved on to Mobile in December of the same year. From the day of his arrival to that of his death, the brief period was one continued ovation for him. His friends rallied around him whenever he was able to receive them. The most beautiful flowers, the choicest fruits, the daintiest dishes, and the rarest game of the season were sent in profusion to him and he was often heard to say that, "No man ever had such warm affectionate friends." Surrounded by such friends as these and ministered to by the tender care of his wife, he expired peacefully on the sixty-ninth anniversary of his birthday, the 31st of March, 1873.

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OCCUPATIONAL HAZARDS: INDUSTRIAL DERMATOSES

by
Paul G. Reque, M.D.

ABSTRACT

As of this time medical education in most medical schools is deficient in teaching courses in industrial-associated disease and injury. The federal governmental agencies have taken it upon themselves to remedy these deficiencies, as far as they may do so, by regulation and decree, but this falls far short of answering the question of prevention and treatment of occupational disease. There is a growing need for informed opinion to become a part of the medical curriculum.

The increasing involvement by government agencies in medical affairs is nowhere greater in the U.S. than in industry. The enormous amount of time and money used today for appeasing various health agencies promises to be much greater in a few years. And it has been projected that in the next 5-8 years industry will be expected to spend about $85 billion in conforming with more stringent and encompassing health care of the employed and the employee-environment. There are several hundred thousand chemical entities known, and about 70,000 new chemical compounds are introduced into the work-place every year, any one of which may have toxic aspects, both immediately discernable, and in the long-term. Many of us need to become directly interested in these conditions, both to recognize and to prevent the occurrence of many of the undesirable consequences.

In a very recent (Jan. 3, 1980) announcement by "H.E.W.", the National Institution for Occupational Safety and Health, (N.I.O.S.H.) notified institutions of learning, large industries, and related institutions, outlining a new program of 2 million in grants for study of causes, environmental-effect of irritants of any and all chemical agents, radiation and the prevention of industrial injury, beginning with a paragraph that reads, "the most **pervasive** current occupational **health problem** in the U.S. is widespread, debilitation **work-related skin disorders**" (italics from quote).

More people suffer from occupational skin disorders than any other single category of Occupational Disease in America. The Bureau of Labor Statistics has reported that skin disorders have accounted for more than 40% of all Occupational Diseases in recent years. Moreover, inadequate reporting masks the true incidence and is suspected to be 10-15 times greater than reported in the "BLS Data".

It is interesting to note that when government employees or labor representatives discuss Occupational Disease it is empiric that the fault causing the disease is **always** "the company," never the employee; and suggests that the company does not disclose the association of the occupational exposure and dangers of the disability in question, and denies responsibility unless "forced" by the governmental bureau or its representatives by confrontation.

In personal experience as a part-time consultant to several larger corporations in the locality, this writer has not been impressed by any pressure or attempt on the part of the companies involved to discredit the patient-employee or his complaints, or to gloss over any possible association with the work-place of the employee, and this experience now extends over a period of more than 25 years. It is true that the consultant must recognize the problem as it exists and in this recognition is one of deficiencies some dermatologists have, really a lack of exposure to industrial disease, and probably a lack of interest.

In background it is interesting to note that until World War I, 1914-1918, occupational disease was relatively confined to on-the-job accidents—falls, fractures, and similar physical injuries. During "W.W.I." the United States being dependent in large measure on Germany to supply our industry with chemicals, confiscated all German-owned chemical patents and processes, as well as German-owned chemical plants. From that time on, the U.S. has assumed an increasingly important and leading role in the production of chemicals, and as a consequence the Federal Government has assumed increasing regulatory powers over the entire industrial segment of production. This is as it should be; there is no other agency that could supervise the working conditions and hazards of workers in all states, and contribute to all states needed information on the prevention, detection, and regulatory powers needed to avoid industrial hazards both to the employee, employer, and the general public. There is a problem, however, in deciding how far regulatory powers should go, and how the tremendous cost of providing safe working conditions for all employees can be attained without disrupting industry.

There are few institutions in the U.S. which offer comprehensive, or educational courses in industrial hygiene or occupational diseases. During my years as a medical student, intern, and resident only casual association with medicine and industry was discussed. The term "industrial physician" had something of a stigma to it, and it was rarely the objective to fellow classmates to look forward to Industrial Medicine. For this reason, there are too few trained and experienced Industrial Physicians, and they are not growing in numbers, if growing at all. They need increases constantly for such trained personnel, or it will be given to relatively laypeople to handle the job.

OCCUPATIONAL MEDICINE is an all-inclusive term which covers the subjects of Epidemiology, Biostatistics, Toxicology, Industrial Hygiene, Safety and Ergonomics, and Treatment. We can only reasonably concentrate on Occupational or Industrial Dermatoses, their prevention, recognition and treatment.

PREVENTION:

1. Proper design of the work place (Ergonomics)
2. Protection from contact with potentially irritating liquids, gases, solvents and powders (cement)
3. Education of employees
4. Personal and plant cleanliness
5. Pre-employment history and p.e.
6. Annual physical check-up
7. Employee uses of "drugs" and medicines
8. Pre-employment patch-testing and its limitations i.e., test may be negative due to no prior exposure, may itself be sensitizing; photosensitizers; cross-reactors
9. Protective clothing, skin-barrier creams; personal comfort of employee (heat, cold, etc.)
10. Elimination of known Industrial Hazards and substitution with less troublesome chemicals
11. Education of employee (Industrial Hygienist), see our present video-type, "Working at Allied Chemical"
12. Use of "TRAC" (Toxic Risk Assessment Committee) **requiring** employer **and employee** to report all possible hazards

PREDISPOSING FACTORS IN INDUSTRIAL DERMATOSES:

1. Skin usually difficult to penetrate by outside contactants, but Mercurials, Iodides, Alkalis, and Sulfides can "crack" the keratin layer and cause easier penetration.
2. Perspiration may make powders, such as Soda Ash, Lime, Calcium-Oxide, a penetrable material.
3. While dark-skinned employees may have less likelihood of Chemical Sensitization and therefore be more useful employees in some industries, great care of such a generality is unwise.
4. Dry skin is more sensitive to friction and pressure.
5. Hairy skin predisposes to folliculitis with oils.
6. Younger employees with acne have more trouble with Chlorinated-Hydrocarbons, Waxes and Greases.
7. Older employees develop actinic skin damage when in sun-exposed jobs.

TREATMENT OF OCCUPATIONAL DERMATOSES:

1. Establish the diagnosis, defferentiating if possible between on-the-job irritants, secondary (home-moonlighting) and contributory factors.
2. Urge employees to report any skin problems to First-Aid Station, Foreman, or Plant Medical Office.
3. Ascertain the cause of the Dermatitis, and use appropriate measures to Neutralize Acids, Alkalis, Photosensitizers, Burns.
4. Hospitalize employee if burns are moderate or severe. Obtain consultation if desired.
5. Eye-injuries should be referred to ophthalmologist promptly.
6. By Epidemiologic means determine if injury is common or widespread in area of employees work-place. Ascertain if a new process is being employed in area.
7. Visit plant-site if patient's complaints seem unusual and require more information as to causes and possible prevention for future employees.
8. Prescribe appropriate local and systemic medication and advise about employees return to work and when.
9. Keep accurate records and report to Plant Medical Office status of injury and causes, if known.
10. Request aid of employee's family physician if required.
11. Try not to take an argumentative position on results of diagnosis and treatment.

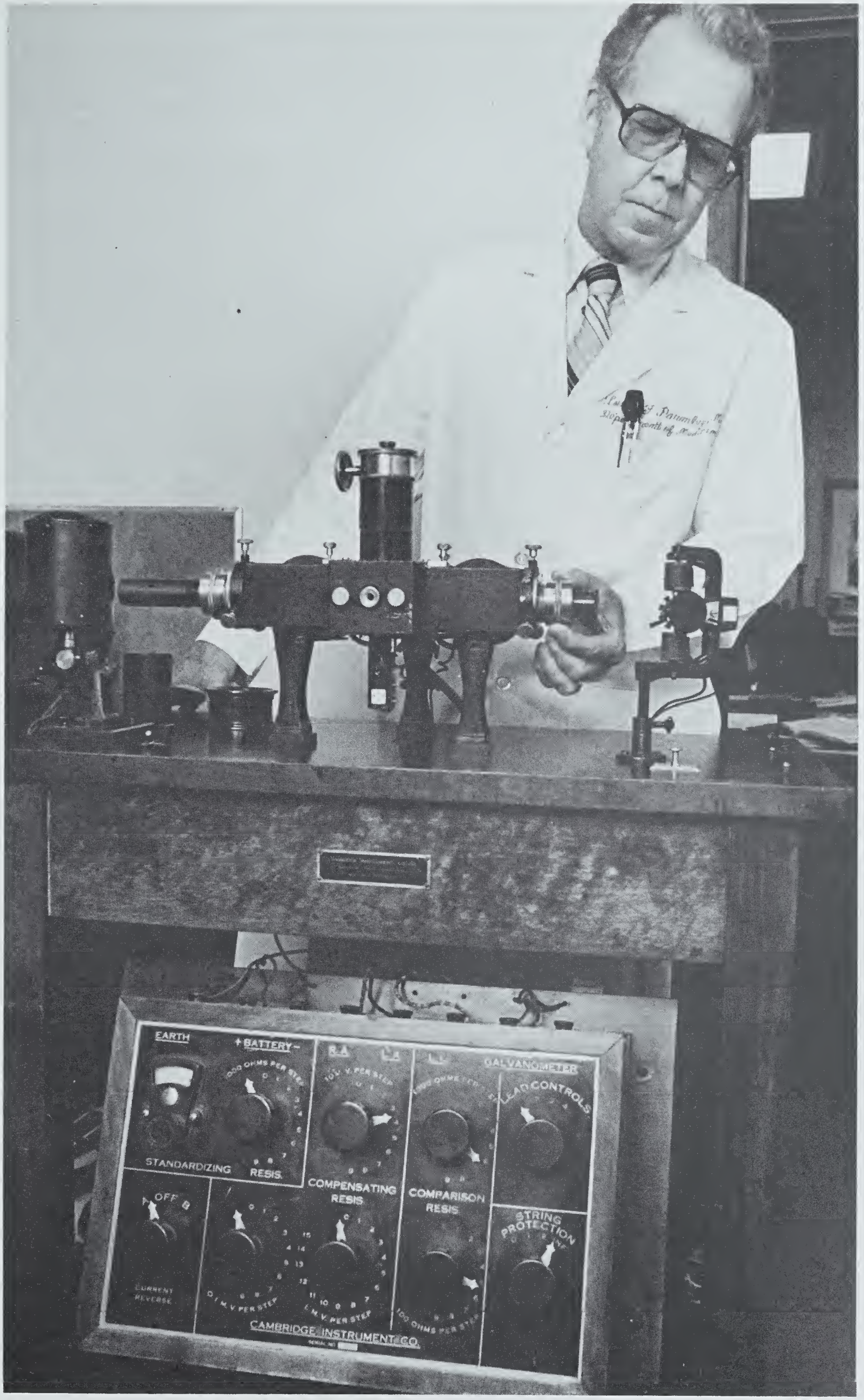
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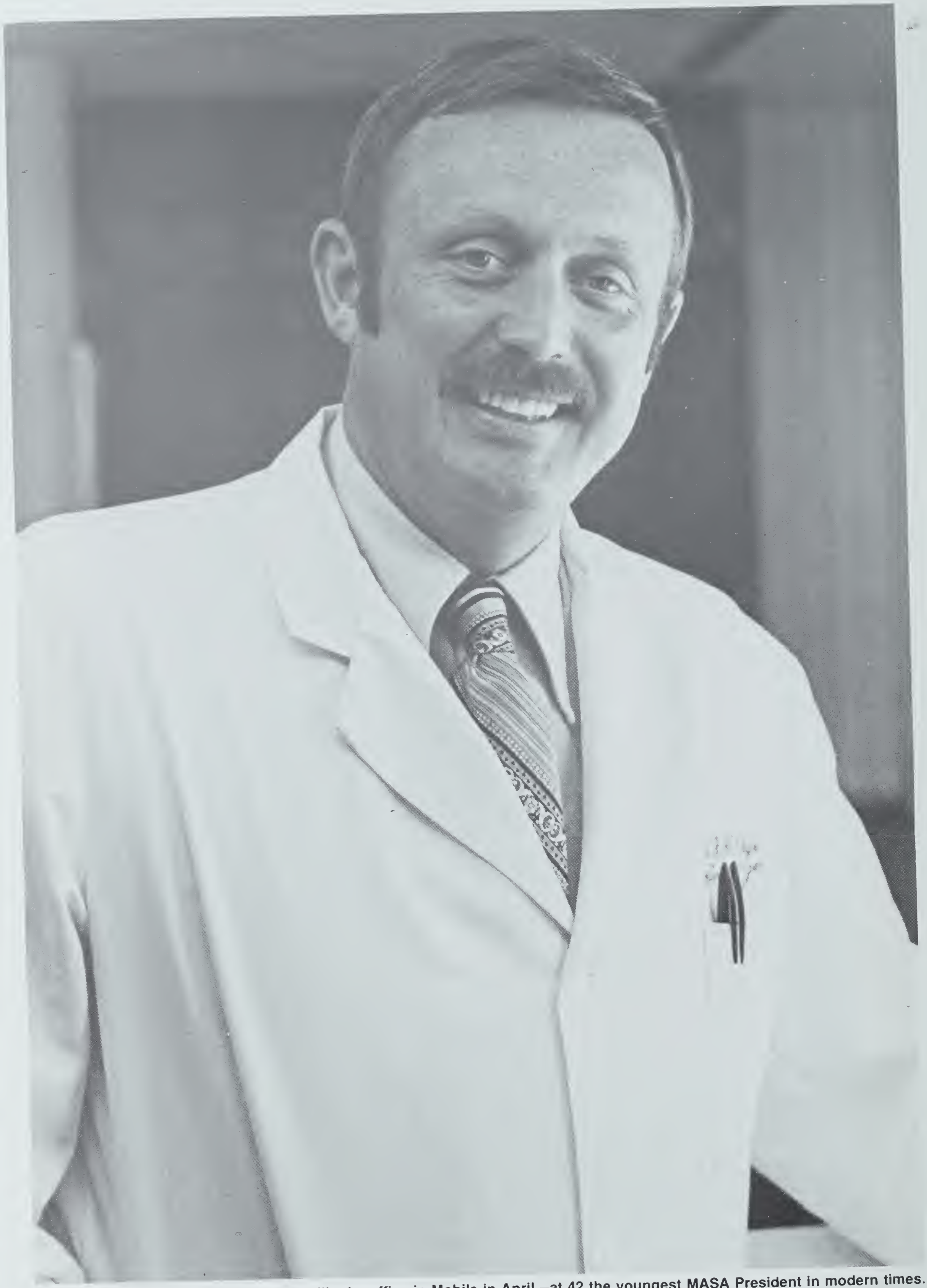
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Lloyd Noland Hospital and Clinic, Department of Dermatology, Fairfield, Alabama 35064



Loren F. Parmley, M.D., University of South Alabama Department of Medicine, inspects one of the very earliest EKG machines, in the Heustis Medical Museum at the USA Medical Center.



J. Kendall Black, Jr., M.D., Huntsville, will take office in Mobile in April—at 42 the youngest MASA President in modern times.

Editorial

INFORMED CONSENT

The phrase "informed consent" creates fear in many physicians because they do not understand its meaning. Most physicians have heard horror stories in which failure to inform a patient of a minor risk led to a massive judgment against a physician. Granted, in many states the theory of informed consent has been extended to the point that it constitutes a legal mine field, but such is not the case in Alabama.

The law of consent has its roots in the basic principle that a person's body should be inviolate and that every person has a right not to be touched or treated medically. In recent years, courts have expanded on this theory and tended to look at the quality of the consent given rather than the simple question of whether or not a procedure was authorized. These cases, the so-called "informed consent" cases, are based on a theory of negligence—the failure of the physician or other health care provider to disclose all that should have been disclosed.

Although states vary as to their determination of what should be disclosed, Alabama still follows the general principle laid down in an early Kansas case that:

> ". . . It is the duty of the doctor to make a reasonable disclosure to his patient of the nature and probable consequences of the suggested or recommended treatment and to make a reasonable disclosure of the dangers within his knowledge which are incident or possible in the treatment he proposes to administer. But, this does not mean that the doctor is under an obligation to describe in detail all of the possible consequences of the treatment. . . the duty of a physician to disclose. . .is limited to those disclosures which a reasonable medical practitioner would make under the same or similar circumstances.

Each case stands on its own facts as to what disclosures are "reasonable." Alabama physicians are authorized, however, to consider the potential detrimental effects a disclosure might have upon a patient and tailor the extent of their disclosures accordingly. It should be noted, also, that it is not required for the physician to personally make the disclosures to the patient. Once the physician determines the disclosures that should be made, he may delegate the function of making the disclosure to a nurse or other person. The law is more concerned with the disclosures that are made rather than who makes the disclosures.

Although it is fortunate that Alabama is a state in which the physician's duty to disclosure is limited to those disclosures which a reasonable physician would make under the same or similar circumstances, it must be recognized that this standard can be changed by the actions of physicians themselves.

If physicians, acting out of fear of horror stories from other jurisdictions, begin disclosing to their patients all of the conceivable risks of a procedure, however slight, without regard for the detrimental effect such disclosures might have on individual patients, then the favorable law of informed consent that presently exists in Alabama will be destroyed without the action of any court.

PRIMARY LINITIS PLASTICA CARCINOMA OF COLON— A CASE REPORT

by
T. Nagendran, M.D.,
Franklin Imm, M.D.,
and R.V. Sarmiento, M.D.*

Even though the carcinoma of the colon is the most common visceral malignancy encountered, the linitis plastica type of carcinoma of colon is rare whether it be primary or secondary.[20] The report incidence of metastatic involvement of colon, secondary to linitis plastica of stomach (also breast and gallbladder) is more common.[10] Recently, we treated a severe case of primary linitis plastica of colon at VA Medical Center, Tuskegee, Alabama. We would like to add that case to the literature and also review the available literature briefly.

CASE REPORT:

C.M., a 44-year-old Black male veteran, was admitted in February 1980 with chief complaints of abdominal distention, nausea, vomiting, anorexia, weight loss and obstipation of two weeks duration. Pertinent past medical history included a cholecystectomy, five years ago; cataract extraction, four years ago; and, recurrent interstitial cystitis in the past one year. Examination revealed a thin, weak, debilitated Black male with a large abdominal mass occupying the entire mid portion of the abdomen from symphysis pubis to xyphoid process. The mass was hard, non-tender, dull to percussion and fixed to the posterior abdominal wall. The bowel sounds were absent; rectum was empty. The clinical impression was acute urinary retention with distended bladder or pseudocyst of pancreas. Insertion of a No. 12 Foley catheter into the bladder led to the drainage of only a few ccs of urine and persistance of the mass. A NG tube was inserted and intravenous fluids were started.

X-rays of the chest and abdomen were made and they were interpreted as normal except some generalized haziness in the abdomen. A sigmoidoscopy was normal up to 12 cms. The barium enema revealed obstruction to the retrograde glow of barium in the region of sigmoid colon, but the study could not be completed due to the patient's inability to cooperate. A G.I. Series showed no abnormality of the stomach and duodenum. An ultrasound of the pancreas failed to show any cyst in the pancreatic area. While these investigations were carried out, many attempts were made to feed the patient, but he kept vomiting. He was started on total parenteral nutrition and after ten days, he was carried to surgery and the abdomen was explored. A long midline incision was made, and on incising the fascia, it was found that peritonium was firmly adherent to the underlying mass. Peritonium needed to be stripped from the mass. The mass, which was felt clinically, was indeed a ball of small and large bowels matted together. There was no tissue plane. Separation of the bowel from one another was impossible. The operation was terminated at this point. The impression at that time was severe granulomatous peritonitis, secondary to either Tuberculosis or Crohn's disease. The patient did very poorly in the post-operative period. He went downhill rather fast and died on the 14th post-operative day in spite of total parenteral nutrition, anti-tuberculosis drugs and massive doses of steroids. An autopsy was obtained.

Autopsy Findings: The most interesting findings on this autopsy was in the abdominal cavity where the walls of all intestines were closely adherent to each other, forming a single big mass as shown in the gross picture.[1]

A careful search revealed no intraluminal colonic lesion, however, a small ulcerated and indurated lesion (shown by arrow in picture No. 1) was found. The stomach and esophagus showed no tumor. The bowel walls were thickened and the lesion involved the submucosa, muscularis and peritoneal surface and extended to the regional lymph nodes and other organs such as pleura, liver and retroperitoneal fibro-fatty tissue.

Histologically, it was a diffusely infiltrating carcinoma, obviously an anaplastic mucin-secreting adenocarcinoma involving the submacosa, muscularis and serosal surface with much fibrosis and some inflammatory cell infiltration.

Most colonic sections revealed normal epithelium with a diffuse scirrhous reaction in the bowel wall in which nests and sheets of anaplastic cells were imbedded (picture No. 2). It is characteristic of linitis plastica carcinoma. The tumor cells were round and some of them contained globule of mucin displacing the nucleus against the cell membrane and causing a typical "Signet-Ring" appearance. (Picture No. 3)

*From Departments of Surgery and Pathology, V.A.M.C., Tuskegee, Alabama.

TABLE I

PROVEN PRIMARY LINITIS PLASTICA CARCINOMA OF COLON

1.	1951	Laufman[8]	44F	Cecum and ascending colon
2.	1951	Laufman	43F	Descending colon, sigmoid colon and rectum
3.	1951	Laufman	69 F	Sigmoid colon
4.	1951	Laufman	66 F	Cecum and ascending colon
5.	1951	Turnbull[9]	34 M	Descending and sigmoid colons
6.	1962	Weintraub[10]	62 M	Rectum
7.	1965	Nelson[11]	36M	Sigmoid and rectum
8.	1967	Sizer[12]	31 F	Descending colon
9.	1967	McQueeney[13]	24 F	Sigmoid colon
10.	1970	Andersen[14]	54 F	Sigmoid colon and rectum
11.	1970	Andersen	71 M	Rectum
12.	1970	Andersen	44 M	Rectum
13.	1970	Castleman[15]	68 M	Cecum
14.	1970	Jacobi[16]	54 F	Sigmoid
15.	1970	Jacobi	75 M	Transverse colon
16.	1971	Speer[2]	64 M	Sigmoid colon
17.	1971	Daley[17]	70 F	Rectum
18.	1971	Daley	71 F	Rectum
19.	1972	Andersen	72 F	Descending colon
20.	1974	Qizilbash[3]	53 M	Rectum
21.	1974	Qizilbash	45 F	Appendix
22.	1974	Qizilbash	57 M	Appendix
23.	1974	Raskin[19]	34 F	Sigmoid colon
24.	1974	Raskin	71 M	Sigmoid colon
25.	1974	Bashour[21]	38 F	Splenic flexure, descending colon and sigmoid colon
26.	1975	Chowdhury[23]	38 F	Sigmoid colon
27.	1977	Tootila[25]	72 M	Rectum
28.	1977	Tootila	55 M	Hepatic flexure
29.	1977	Tootila	61 F	Splenic flexure
30.	1977	Tootila	70 F	Sigmoid colon
31.	1978	Amorn[22]	61 M	Sigmoid colon
32.	1978	Amorn	20 M	Rectum
33.	1980	Present	44 M	Entire colon

Total: Female—16
Male—17
Sigmoid—14
Rectum—8
Rectum—8
Other—11

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DISCUSSION

Literature review: Linitis Plastica (Gk: Linen Cloth or Net) is a term commonly used to describe a diffuse intramurally infiltrating anaplastic carcinoma of a hollow viscus resulting in a shrunken organ with a thickened walls.[23] Lieutaud,[29] in 1779 first recognized this entity in the stomach.[20] Andrae, in 1829, reported a case but he believed that the lesion was simple hypertrophy of the stomach.[20] In 1854, Brinton[29] coined the term Linitis Plastica. We have collected a total of 33 cases of Primary Linitis Plastica or Carcinoma of Colon (Table I) and 27 cases of probable primary Linitis Plastica of Carcinoma of Colon (Table II).

Incidence and Clinical Findings: The stomach is the most common site of the primary Linitis Plastica type of carcinoma and accounts for 99% of this lesion. The colon comes next, about 0.9%; and, breast and gallbladder together 0.1%.[10]

Almost all of the symptoms of primary Linitis Plastica Carcinoma of Colon refer to the GI tract.[20] Lower abdominal pain and change in bowel habits are the usual presenting symptoms. The lesion is more common in the sigmoid colon and when the lesion is found in the transverse colon, it is almost always metastatic from the stomach. Even though Raskin[20] believes that bleeding per rectum and anemia are not common, the review of the literature does not support this. The abdominal mass as presented in our case is very uncommon. The relationship of this condition with ulcerative colitis is not very clear.

Radiological Features: This has been well summarized by Raskin.[20] Long rigid segment of involved colon, lack of spasm under fluoroscopy, poorly delineated tapered margins and lack of mucosal destruction should alert one of this entity, but a number of other conditions can simulate this condition. (See Table I).

Pathology: Pathology of primary Linitis Plastica Carcinoma of Colon is essentially the same as pathology of Linitis Plastica of Stomach. The entire bowel wall is thickened with narrowed lumen. Mucosal folds are obliterated, ulceration of mucosa is usually absent. Tumor has a tendency to spread along the submucosa. Induration of pericolic fat and involvement of regional lymph

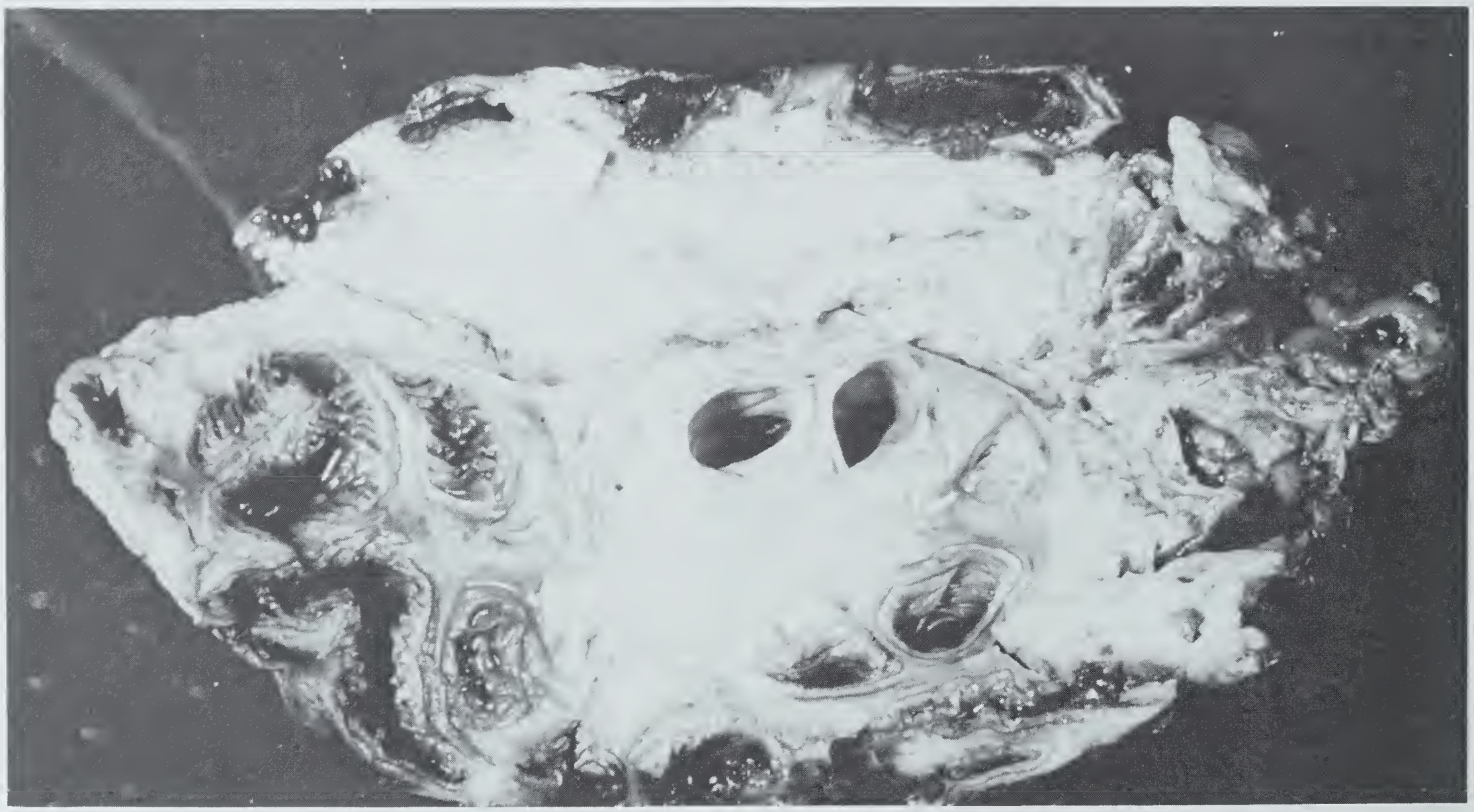
TABLE II

PROBABLE PRIMARY LINITIS PLASTICA CARCINOMA OF THE COLON*

Year	Author	Number of cases	Location
1931	David [26]	1	Rectum
1943	Saphir[1]	2	Rectum
1943	Saphir	1	Descending Colon
1958	Fontaine[27]	2	Rectum
1960	Fahl[5]	11	Colon and Rectum*
1963	Wolf[6]	4	Sigmoid
1969	Phalke[7]	1	Rectum
1969	Phalke	3	Sigmoid
1973	Greenbaum[28]	1	Rectosigmoid
1973	Greenbaum	1	Sigmoid

*Cases in the literature which may actually be primary in the colon, but the stomach was not examined.

†Exact location not specified.



Picture 1: Note the small and large bowels are matted together as a single mass.

nodes are common. In women, the ovaries are commonly involved. For some unknown reason, liver metastasis is not very common.

Microscopically, Linitis Plastica Carcinoma is characterized by anaplastic tumor cells (i.e., darkly stained round malignant cells, Signet-Ring cells and abortive grandular pattern), in the presence of inflammatory changes with much fibrosis.

Treatment: Wide excision of the lesion, with removal of an abundant amount of mesentry in its vicinity is the treatment of choice. Sizer[12] recommended hysterosalpingo-oophorectomy in addition to colon resection in women, due to the high incidence of early metastasis to ovaries. Prognosis is uniformly poor.

Summary: A rare case of primary Linitis Plastica Carcinoma of Colon is presented. Literature is briefly reviewed.

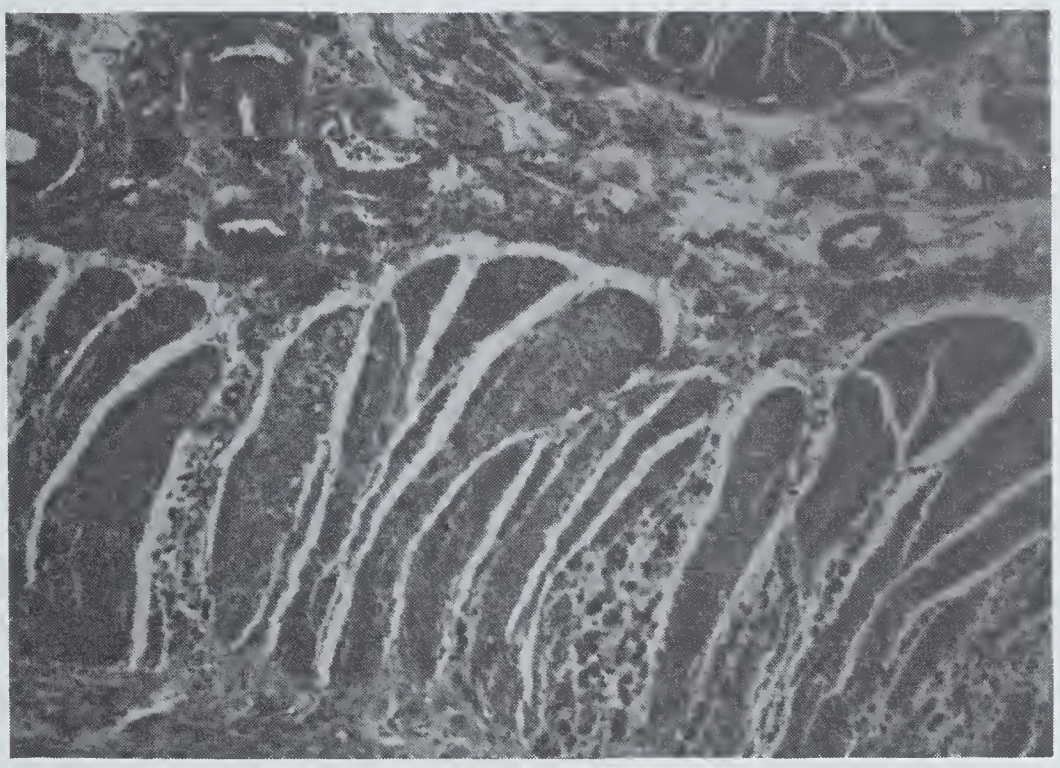
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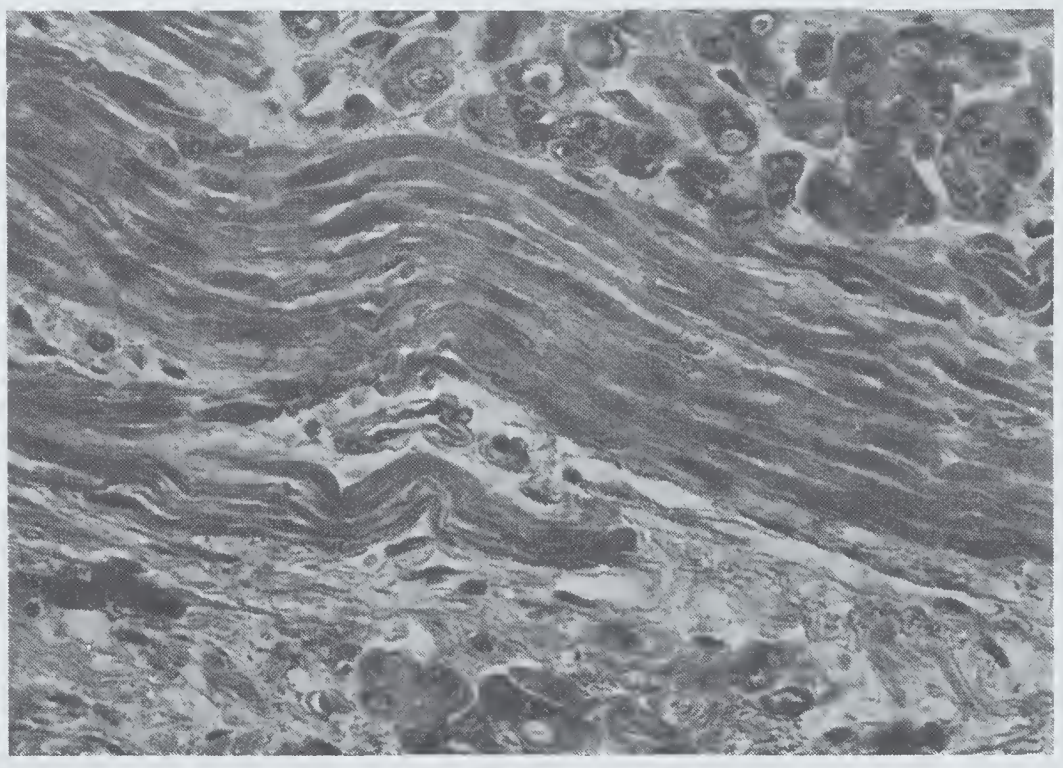
DIFFERENTIAL DIAGNOSIS OF LONG NARROWED SEGMENT OF COLON[20]

Amebiasis
Carcinoid
Crohn's Disease
Diverticulitis Endometruosis Ischemic Colitis
Lymphogranuloma
Venerium
Lymphosarcoma
Radiation Fibrosis
Schistosomiasis
Secondary Carcinoma
Tuberculosis
Ulcerative Colitis

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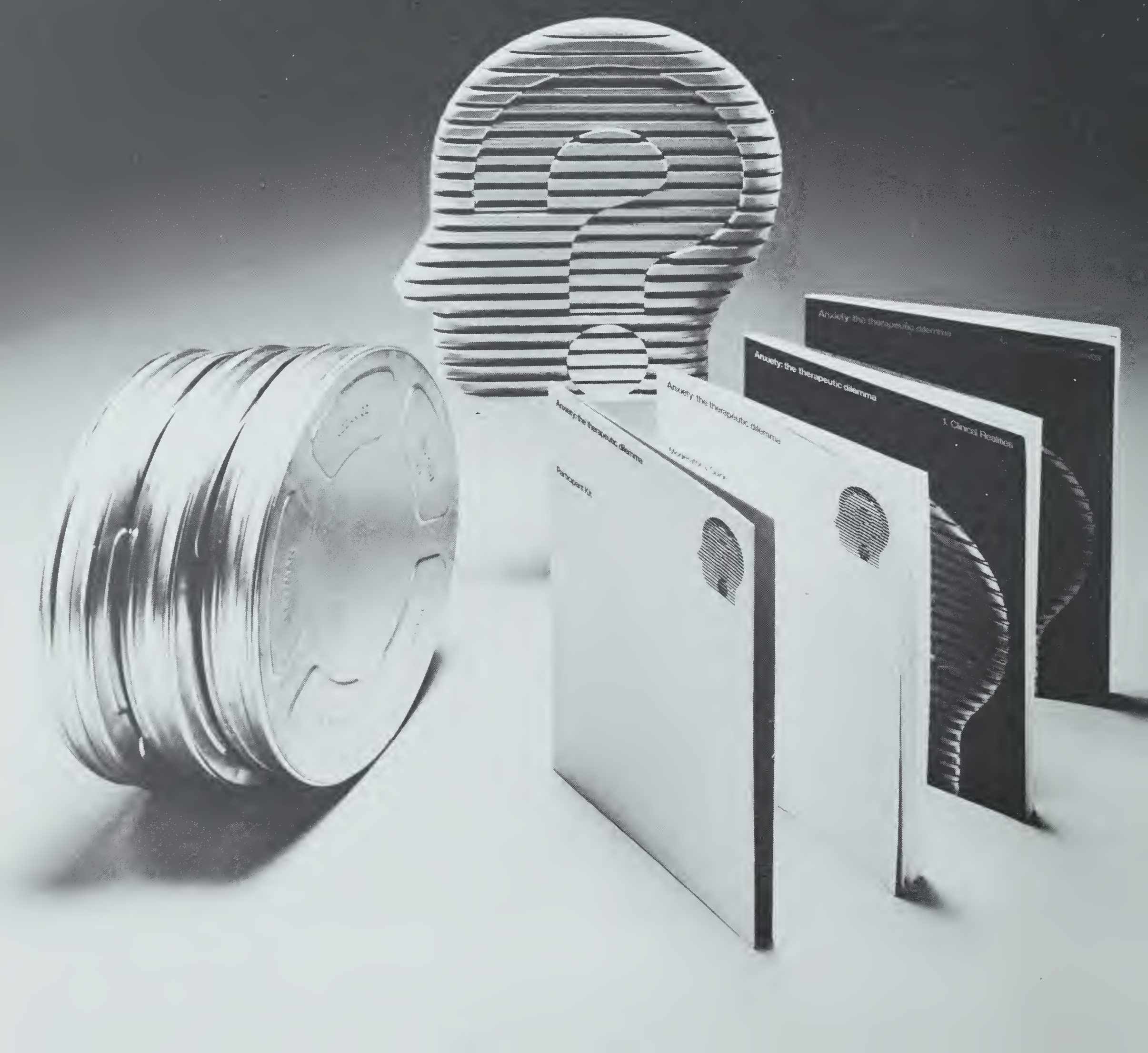


Pictures 2 and 3: Note diffursely infiltrating adevo carcinoma.

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YELLOW FEVER IN RELATION TO ITS CAUSE

Reprinted from **Collected Essays,** Jerome Cochran, M.D., Brown Printing Company, Montgomery, Alabama, 1890.

By Jerome Cochran, M.D.

The early history of Alabama medicine has roots deep in the Mobile experience, where contagion was a constant peril to the inhabitants and a baffling problem to physicians. In this essay, Alabama's first health officer, Jerome Cochran, M.D., one of the organizers and guiding of forces of MASA, discusses what was known at the time of the writing about the worst of the Mobile health menaces, yellow fever. Some of the speculations as to etiology may be amusing today, but it wasn't then: this was a life and death struggle that left a permanent imprint on Alabama, on public health, and on the organization and dedication of MASA's physicians of today and yesteryear. Dr. Cochran published this paper in a bound collection of selected works in 1890. The exact year of its first publication is unclear.

The causes of diseases have been variously classified, and variously named. In a general way, we may speak of them as predisposing causes, concurring causes, and exciting causes, numbering among exciting causes that large class of etiological agents which are better known as zymotic or specific morbid poisons. The predisposing and concurring causes, which become operative in the production of yellow fever, are substantially the same as in most other diseases. They include such incidental influences as are found in temperament, diathesis, hereditary tendency, susceptibility of age, of sex, of condition, of occupation, of exposure, of habit, *et id omne genus*. But, of course, the *causa efficiens* of yellow fever—the cause of which we are in search is not of this character.

Yellow Fever is a specific disease. It has, therefore, a specific cause—that is to say, a cause which must be present and operative in order that the disease may exist at all. This specific cause it is that we are in search of. What is it? What is its physical character? What are its habits? What are its habitats? These are the questions that we are required to answer. In a word, our subject is the Natural History of the Yellow Fever Poison.

It is sometimes an enterprise of considerable difficulty to write the natural history of creatures with which we are, in many ways, comparatively familiar. How much more difficult must it be to describe an object which has never been seen by anybody, and of which our knowledge is altogether speculative and inferential? And yet, difficult as this enterprise is, it is not impossible. "What song the Syrens sang," says, quaintly, Sir Thomas Brown, "or what dress Achilles wore when he hid himself amongst women, although puzzling questions, are not beyond all conjecture." Ordinarily we reason from cause to effect. But we may also reverse this process, and reason backwards, from effect to cause. It is by means of this retrograde process that many of the finest discoveries of science have been made. Take one example as the type of many. Leverrier, studying mathematically the perturbations of Uranus, found it impossible to account for them adequately as growing out of the attractions of the planets already recognized and named. Evidently some unknown factor was at work. And this unknown factor of planetary perturbations—this tremendous influence, which was able to draw the vast mass of Uranus out of his appointed orbit— what could it be but another planet? This was, of course, the natural presumption, since planets are the natural inhabitants of the solar universe. Acting upon this presumption, it was possible, by the application of Bode's law, to fix the mean distance of the hypothetical planet from the sun. The amount of the Uranian perturbations requiring explanation, furnished the data for measuring its mass. The orbital position, and the direction of the perturbations, pointed to its place in the abysses of space. It was the result of calculations based upon such considerations as that enabled Leverrier to say to Dr. Galle, of Berlin: "Look for the planetary stranger we have been in search of in such a quarter of the heavens." Thither, accordingly, the Berlin astronomer turned his telescope, and there, blazing in the broad fields of Heaven, there greeted his astonished eyes the apparition of a star which no mortal had ever seen before. And so Neptune was added to the family of solar planets, and the name of Leverrier was inscribed among the immortals.

Let us see if we can apply this same method to the discussion of the problem which we have in hand. Let us see if we can pass through the long catalogue of facts which have been accumulated in connection with the propagation of yellow fever, in space and time back to the specific and inscrutable agent, of which it is the malignant offspring.

In this discussion, I shall have occasion to make use of two words which are in everybody's mouth, and which ought, therefore, to be well understood, but which, nevertheless, are often employed in such confused and indefinite fashion as to show that their real import is very imperfectly apprehended. The two words I have in mind are *Theory* and *Hypothesis*. They are not synonymous, but, on the contrary, of widely different connotation.

Theory means the orderly and systematic arrangement of the principles of science. In other words, *Theory* is equal to ordination.

Hypothesis means a tentative and provisional explanation of certain phenomena—a conjectural explanation proposed as a basis for subsequent research. In other words, Hypothesis is equal to *substration*.

The essence of *theory* consists in the *arrangement* of principles already accepted; one arrangement gives one theory, and another arrangement gives another theory. *Theory* is, therefore, the last result—the final consummation of science. *Hypothesis* is just the contrary of all this. Certain facts and principles are known, but their relations and dependencies are obscure. Now, if we take these facts and principles, and make a supposition about them, that their relations are such and such, and that they have their origin in such and such causes—if we do this, we construct an Hypothesis. Hypothesis is, therefore, the first word—the initial movement of science—the *terminus a quo* of scientific speculation, of which theory is the *terminus ad quem*.

Now, without further vindication of it, I will say simply that hypothesis is recognized as a very important means of scientific research. I shall

necessarily make use of it in seeking to ascertain the cause of yellow fever, since our inquiry leads us naturally to the consideration of the various opinions in reference to the subject matter of it, which have, from time to time, obtained currency amongst medical men.

In explanation of the genesis or origin of yellow fever, five principle Hypotheses have been advanced, each one of which requires separate notice.

THE FIRST HYPOTHESIS

The first hypothesis is more of an historical curiosity than anything else. It ascribes the production of yellow fever to the action of some mysterious principle—intangible and inscrutable— which is supposed to be generated by the action of the sun upon the wood which enters into the construction of ships. It was advocated, during the second quarter of the current century, by several British naval surgeons on duty in the West Indies, and was offered by them in explanation of the occurrence of yellow fever in ships at sea. These writers, and among them I may mention Drs. Wilson, Bancroft, Adolphus, and McNamara, discarding the doctrine of the infectious character of the disease, were necessarily driven to seek its cause on board their own ships, and, inasmuch as these were sound and clean, and scrupulously kept free from all visible and palpable agents of disease, they were led to ascribe the outbreaks which fell under their observation to this imaginary ligneous principle which I have mentioned. I need not add that this hypothesis has met with but little favor.

THE SECOND HYPOTHESIS

The second hypothesis teaches, like the first, that yellow fever is developed in ships at sea. The development is supposed to occur only in certain zones, within the tropics, and long continued solar heat is accredited as one of the principle factors of the disastrous process. This hypothesis differs from the first, inasmuch as it assumes the production of a specific organic poison, which is the specific cause of the disease. It is further held, by its advocates, that this specific organic poison, thus miraculously called into malignant life in ships at sea, is endowed with indefinite powers of multiplication, and that it may be carried, by the infected ships, into cities on the seaboard, and thus give rise to epidemics on land. The only point in this hypothesis, that needs to be specially considered, is the manner in which it accounts for the origination of the yellow fever poison, namely, by spontaneous generation, or archebiosis in ships at sea, under the incidental influences of climatic and solar conditions. I am not able to give any evidence in support of this proposition. I know only, in a general way, that it is asserted that, on many occasions, yellow fever has occurred on ships far from land, and from any infected place, and on ships, too, that had never been in any way exposed to infection; so that it is argued that the organic poison must, e*x necessitati rei,* have arisen spontaneously on board the ships themselves. These facts, if, indeed, they are facts, are certainly very curious.

THE THIRD HYPOTHESIS

The third hypothesis is that which classes yellow fever along with malarial or paludal fevers; as of the same generic nature with the remittent fevers of hot climates; as the result of a greater concentration, or a greater malignancy, of the malarial poison; as, in a word, the highest type of the great malarial family of fevers.

For many years this was the favorite hypothesis of a large class of medical writers. It received the support of Cleghorn, Lind, Hunter, Allison, Craigie, and Martin, and of many others that need not be here mentioned. It was particularly recommended to Southern physicians by the various papers published in relation to it by Dr. Barton, of New Orleans, and particularly by his book on the Cause and Prevention of Yellow Fever.

Dr. Barton devoted to this investigation an immense amount of labor and research, and supported his opinions with such ingenuity, and such imposing summaries of facts and figures, that he carried conviction to many minds. He asserts that yellow fever always arises out of certain definite conditions, all of which must always concur for its production, and that these conditions are always the same as those which give rise to periodic or bilious fevers—the same in kind, but different in degree. These essential conditions are stated to be three, namely:

1. The long continued prevalence of intense solar heat, periodic fevers requiring for their sporadic appearance a temperature of only sixty degrees Fahrenheit, and for their general dissemination a temperature of over sixty-five degrees, while for the origination of yellow fever the temperature must, for several weeks, range above eighty degrees.
2. Atmospheric humidity, associated with a high dew-point, which condition is not necessarily attended by any considerable fall of rain.
3. Terrene exhalations, rising from a soil largely contaminated with organic matter—particularly exhalations consequent on the extensive disturbance of the original soil of the country.

As the result of an extensive collation of facts and authorities, he considers himself warranted in the conclusion, "That the emanations arising from the upturning and exposure of the original soil in the summer season, together with filth, under certain determinate atmospheric conditions, has been the main, if not the special, cause of every epidemic yellow fever that has ravaged not only this city (New Orleans), but the southwestern part of the United States, for more than half a century;" and he utterly repudiates the dependence of either yellow fever or bilious fever or any specific morbid poison of any character whatever—living or dead, organic or inorganic.

Notwithstanding the extensive prevalence which this doctrine of the malarial affiliations of yellow fever at one time obtained amongst medical men, and notwithstanding the immense accumulation of arguments which have been adduced in support of it by the writers whom I have mentioned, and by scores of others whom I have not mentioned, it is now very generally conceded that it is untenable. The arguments against it are, indeed, not only conclusive, but are absolutely overwhelming. It is not necessary to examine these adverse arguments with any fullness of citation or of detail, because the arguments to be adduced presently in support of another doctrine, will be found to furnish indirectly the most conclusive refutation of this one. I will therefore content myself here with a very brief discussion of the differential characters of the two fevers in question.

The morbid anatomy and the rational symptoms of the two diseases are widely different. There is in true yellow fever, for the most part, a remarkable absence of that periodicity which is so characteristic of true malarial fever; yellow fever being a continued fever of one paroxysm, while malarial fever is an intermittent fever of many paroxysms. In yellow fever there is a prevalence and range of haemorrhages such as is hardly to be found in any other disease; in malarial fever these haemorrhages are far less common. Albuminous urine is almost invariably found in yellow fever; it is only occasionally present in malarial fever. In malarial fever the pulse and the temperature usually move on parallel lines, rising and falling in concert; in yellow fever the pulse and the temperature part company almost from the beginning of the attack and travel along widely diverging routes, as is indicated in Faget's law. Men suffer from attacks of malarial fever again and again, becoming more and more susceptible to the influence of the malarial poison with each successive invasion; while one paroxysm of yellow fever unquestionably fortifies the system against subsequent danger, second attacks, to say the least, being of rare occurrence. Quinine has a power over malarial fever that is beyond the reach of doubt or cavil; it has not the same power over yellow fever.

But the weakness of this hypothesis of the origin of yellow fever in the same climatic influences as those which produce malarial fever, may be made still more evident by another line of argument. If yellow fever is merely a more malignant variety of malarial fever, produced by the longer prevalence and the greater intensity of solar heat in connection with the other factors engaged in the generation of malaria, then ought yellow fever to obtain, from time to time, in all malarial regions where these conditions are found in similar conjunction. But it does not. It is found along the west cost of Africa, which is, truly, a very

paradise of malarial fever; but the east coast of the same continent, with substantially the same climate, is exempt from its ravages. It is not known at all in Asia, neither among the indigenous inhabitants nor among the Europeans living there, although in the East Indies we have a climate very similar to that of the West Indies—a climate of tropical fervor and a tropical luxuriance of vegetation in every stage of growth and of decay. Here we have all the varieties of malarial maladies in their widest prevalence and most malignant forms. Nevertheless, in all this vast region, yellow fever has never made its appearance. How, on the malarial hypothesis of yellow fever, are these facts to be explained? How, on this hypothesis, are we to account for the exemption from yellow fever of these tropical hot-beds of malarial infection? There is still another class of facts which involve similar problems. For while yellow fever is not to be found in so many of these hot regions, where malaria is so abundant and where malarial diseases are so malignant, it has pushed its epidemic conquests up into comparatively high latitudes in the temperate zones, where malarial diseases exist only in their mildest types, as, for example, in Philadelphia and Boston.

THE FOURTH HYPOTHESIS

Another hypothesis of yellow fever, which has been held by many, is this, namely—that while it is not the offspring of the malarial poison itself, it is still the product of endemic and climatic causes, such as are at work in many warm countries and notably in the West Indies, which seem to be the favorite habitat. To a certain extent this hypothesis is similar in character to the second hypothesis which I have passed under review, one of the principal differences being that in this the disease is the product of endemic factors operating upon the land, while in the other it is the product of the same factors operating on ships at sea.

It seems to me that this hypothesis will not bear confrontation with facts, any better than those which we have already disposed of. Because, if this hypothesis is true, we ought then to find yellow fever wherever we find the supposititious endemic and climatic conditions just as we find malarial fever wherever we find the conditions which are known to contribute to its production. But yellow fever shows no such constant relation to constant climatic conditions. In the West Indies, for example, yellow fever seems to have been unknown until about two centuries ago, the first authentic account which we have of the malady being that given of the epidemic of 1647, by Ligon, in his history of Barbadoes. We have no reason to believe that the climatic and endemic conditions at work in the West Indies have undergone any radical change within historic times, and must presume, therefore, that they are essentially the same since 1647 as they were before that date. If they are adequate *now* to the generation of yellow fever epidemics, it would seem as if they should also have been adequate *then*. But these islands remained free from the presence of the pestilence for a century and a half after they had been found by Columbus, lying in the soft embrace of summer seas; and we seem almost forced to the conclusion that the new fever which was born into the world in 1647, must have been the offspring of some new morbid cause.

Another example may be drawn from the medical history of the Valley of the Amazon. Here again we have the sun of the tropics in all his torrid splendor, and the vegetation of the tropics, through all the genera and species of one of the earth's richest floras, in such magnificence and profusion as to set at defiance all the common-places of description. For one hundred and fifty years after the introduction of yellow fever into the American continent, the river Amazon limited its migrations towards the south. North of the great river, the fever had already raged through many epidemics, while the nations living south of the great river, in substantially the same climate, were never called upon to mourn over its malignant visitations. They seemed to lie outside of the geographical limits of the disease. But their fortunate immunity was not destined to continue. In 1850, the great fever found its way across the great river; and since then the nations that were before exempt suffer from it even more than their neighbors. If yellow fever depends strictly on climatic causes, how is this fact to be explained? The climate has not changed. Sun and air, land and water, vegetation in process of growth and in process of decay—none of these have changed. They generate the same morbific agents since 1850 that they generated before 1850, and in the nature of things can generate no other. Whence, then, this terrible disease which was before unknown? There is but one answer. A new factor of disease has gained a footing in the land.

THE FIFTH HYPOTHESIS

The last hypothesis that I shall mention, is that which teaches that yellow fever is caused by a specific zymotic poison which is generated in the bodies of those who are sick of the disease; and that by the transmission of this poison yellow fever is communicated from person to person just as small-pox and measles are known to be communicated from person to person, or, perhaps more accurately, just as typhoid fever and cholera are communicated from person to person; so that yellow fever is truly an infectious disease, and, in the only rational meaning that can be attached to that much abused phrase, a contagious disease. I have called this doctrine an hypothesis, but it rests on so broad a foundation of proofs, express and inferential, that it almost deserves to be classed as a scientific theory. It is the doctrine which was almost universally accepted amongst those who were the witnesses of the first historic epidemics of this fever, both professional witnesses and non-professional witnesses; and it has always remained the predominant opinion in the popular mind until the present day. The opinion of the medical profession, as we have seen, has not been so uniform; and only a few years ago it was very much the fashion in medical circles to deny *toto coelo,* that the disease was in any way contagious or infectious from person to person, and very specially was this the case amongst American physicians. In the last few years, however, the doctrine of contagion has regained the ground which it had lost; and almost all recent medical authorities accept it as beyond all reasonable question; so that the doctors and the people have come together again. Thus Aitken defines yellow fever as "a specific malignant fever of a contagious type, occurring, as a rule, only once during life, and propagated by contagion." And Dr. McDonald, author of the able article on yellow fever in Reynolds' System of Medicine, calls it "an infectious, continued fever;" the context showing that he uses the word "infection" in the same sense that Aitken attaches to the word "contagion."

This radical change of medical opinion has been the natural and logical result of several concurrent causes, foremost amongst which there are two that deserve special mention, namely:

(1). The immense extension in recent years of the theory of germs in general, and of the germ theory of the zymotic diseases in particular.

(2). The more careful study of the facts connected with the epidemic dissemination of yellow fever in space and time.

I will not introduce here any general discussion of current doctrines of disease germs, because I could do little more than repeat what I have said on that subject in my history of the Small Pox Epidemic of Mobile of 1874-5. It is true indeed that some new facts have been added to our previous knowledge by the demonstration in 1874 by Koch, a German physician, of the etiological connection between the epizootic pestilence which destroys in Europe immense numbers of horses and cattle under the name of Splenic fever, all the rods, filaments, and spores of the parasitic fungus *the Bacillus antracis;* by the demonstration, in 1875, by Mr. Kloin, in London, of the parasitic fungus which produces typhoid fever; and by the demonstration, in 1876, by Drs. Lanzi and Terigi of Rome, of the microscopic algaid spores which give rise to the great family of intermittent or paludal fevers. But I reserve the discussion of these discoveries, and of such other discoveries of a similar character as have been made in the last two or three years, for a separate essay.

YELLOW FEVER GERMS

Notwithstanding the fact that the history of the dissemination of yellow fever leads infallibly to the conclusion that it is a specific fever, caused by the introduction into the organism of a specific organic poison which is endowed with life, and with the faculties of growth and

of reproduction, it still remains true that this poison has never been seen by human eyes, having up to this time eluded the most jealous scrutiny of our microscopes.

We have, therefore, to depend largely upon conjecture in the investigation of its character and of its habits; but that it is truly living and organic is too well established by incidental and circumstantial testimony to admit of reasonable doubt. The indisputable fact that this poison reproduces itself indefinitely, multiplying its generations according to its kind, is of itself, when well considered, a sufficient argument, since it finds no possible explanation in any other hypothesis. Inorganic bodies of whatever kind do not increase in numbers by any process of self-multiplication. But it is beyond dispute that the poison of yellow fever is endowed with the faculty of reproductive multiplication. It then follows that they must be able to appropriate food, to grow in size by the transformation of the food appropriated into their own substance, and to pass through the various stages of organic evolution and development. It is also evident that inasmuch as they are capable of living they must also be capable of dying, and hence of being destroyed. So far we are upon safe ground. But when we endeavor to go further than this we meet with difficulties that are well nigh insuperable.

There can be no question in this connection more important than to determine whether the reproduction of these germs takes place inside of the bodies of human creatures sick of yellow fever, as seems to be the case with the germs of small pox, or whether the reproduction of the germs takes place outside of such bodies, as seems to be the rule in malarial diseases; or whether the reproduction occurs partly inside and partly outside of human bodies, as may be the case perhaps in typhoid fever and cholera. *Dr. J. C. Nott, in a paper published in the Report of the New York Board of Health for 1870, makes the assertion that the generation of the yellow fever germs as accomplished exclusively outside of the bodies of yellow fever patients, but he gives neither facts nor other reasons in support of the assertion.*

That such external multiplication of disease germs sometimes takes place is very certain, but I know of no express proof of the correctness of Dr. Nott's dogmatic assertion; and the only indirect proof that I know of in support of it is the great difficulty of accounting for all of the facts of a yellow fever epidemic by means of the other doctrine–the doctrine that yellow fever germs are exclusively multiplied inside of diseased human bodies. This internal multiplication of disease germs is common enough. We see examples of it in small pox, in measles, in scarlet fever, in vaccinia, and in many other diseases. We are warranted, therefore, in assuming as a provisional hypothesis, that a similar process of internal reproduction occurs in yellow fever. Besides the argument from analogy thus furnished, how else can we account for a case like this, which is not of unfrequent occurrence. A man who has been exposed to the infection of yellow fever—who has, as we say, the germs of the disease in his system, but who is still well, comes into a perfectly healthy place—in a few days he is taken sick, and soon from his sick bed, as a center, the fever spreads in epidemic waves over the adjacent neighborhood. In such cases, if the traveler himself is not taken sick he does not communicate the fever. The germs, then, must have been lurking in his system, and not about his clothing, nor about the surface of his person. It is plain in such cases that the source of infection is the sick man, and that the infectious poison is generated inside of him and thrown off to contaminate the environment just as in small pox or measles. Here, again, we have something that looks very much like a demonstration.

But this apparent demonstration does not exclude the possibility that a supplemental process of external reproduction may go on at the same time. What, indeed, is to hinder this, if the environment supplies a sufficient amount of organic food to maintain the vital functions of the germs, together with appropriate hygrometric and thermometric conditions? It is not strange that organic germs should have more than one habitat. Professor Ferdinand Cohn found, in his investigations into the particulate and bacteroid character of the specific contagium of vaccinia, that the multiplication of the contagious particles continued to take place in the vaccine lymph after it had been removed from the vesicles in which it was formed. That is to say, the specific germs of vaccinia which were formed inside of the human system, were still endowed with the faculties of growth, and of the reproduction, after they had been kept for several hours outside of the human system. There are certain facts, even in human physiology, which illustrate the same principle. Man is an individual living organism. He is also, from another point of view, a complexus of subordinate living organisms. The white blood cells, for example, are individual organic living creatures, which appropriate nutritive material from the blood plasma, and live, and grow, and give birth to other white blood cells like themselves. Now, under certain circumstances which I need not stop to detail, the white blood cells pass out of the blood vessels, out of the blood plasma which is their natural habitat, so that they are no longer constituent parts of the organism in which they originated. In a word, they migrate and are transformed into pus cells, or into mucus cells. But these pus cells, and mucus cells, after they thus become foreign bodies in relation to the organism whence they sprang, still remain prolific for a time, and give birth through many generations to prolific offspring. Ultimately, however, this power of external reproduction fails, and we have no more mucus and pus, without a new requisition on the white blood cells.

To sum up this part of the argument, there seems to be sufficient reason to warrant the three following conclusions, namely:

(1). That the efficient cause of yellow fever is a specific poison, which presents itself in the shape of living organic germs, which are endowed with the faculties of growth, development, and reproduction.

(2). That these faculties of growth, development, and reproduction are primarily manifested inside of the bodies of human beings, where the infectious organic germs seem to find their fittest pabulum and most favorable environment.

(3). That these vital endowments may, perhaps, be also secondarily manifested in the outside world when it furnishes a favorable environment of nutritive, climatic, and meteorological influences.

THE PROPAGATION OF YELLOW FEVER

The problem of the propagation of yellow fever naturally divides itself into two sections, namely:

(1). The propagation of yellow fever from person to person in the same community; and

(2). The propagation of yellow fever from place to place over wide intervals of space.

We see at a glance that the problem, in both of its sections, practically resolves itself into the problem of the transportation of the infectious germs of the disease from their place of birth into susceptible human organisms. In the first instance, the infectious germs must be transported over short intervals of space; and in the second instance, they must be transported over wide intervals of space.

The transportation of the germs of the disease for short distances, from person to person, presents to the scientific imagination no special difficulties, when we consider the problem in its most general terms. The facts and principles already elucidated warrant us in the belief that the atmosphere of infected places becomes, as it were, saturated with the yellow fever germs, the multitudinous generations which are born into the world in the bodies of the sick, being reinforced by other multitudinous generations born into the world in the warm and humid environment, so that in the process of respiration they are taken into the lungs, and from the lungs are absorbed into the blood, and along with the blood are conveyed to every part of the organism; until at last the conservative energies of the patient are overpowered, and the state of disease succeeds to the state of health. Whether or not the germs may also gain access to the system through the medium of water and other fluids taken into the stomach, is a phase of the problem which has been but little studied, and with reference to which we have very few established facts to guide us even to a plausible conjecture. The small number of reported cases in which black vomit has been swallowed with impunity, as far as they go, favor a negative conclusion; but they are too few, and are, besides, liable to too many objections, to furnish the basis for an authoritative induction.

The transportation of the yellow fever poison from place to place over wide intervals of land and sea, presents for solution a problem differing in some of the elements that enter into its discussion from that already considered. But if we proceed upon the assumption that the yellow fever poison is a particulate, ponderable, material thing, endowed with a certain tenacity of life, and with an indefinite faculty of reproduction, it is easy to see in relation to this problem, also, that it presents to the instructed imagination of science no difficulties of insuperable magnitude. It can certainly be carried in the bodies of those who are sick of the disease. It may be carried also in the bodies of those who are not yet sick of the disease, but who bear within them the seeds of pestilence which, after an incubation of several days, may bear malignant fruit. It may be carried also in ships and steamboats, and rail road cars, along with dry goods and groceries, and the clothing of men and women. All of these modes of transportation are established by almost innumerable instances.

Many writers have believed that the yellow fever poison may be transported over considerable distances on the wings of the wind; but our knowledge of this sort of transportation is not very definite, either in relation to yellow fever, or in relation to any of the other members of the zymotic family of diseases. We know, in a general way, that ordinarily the malarial poison is wafted by the wind for only a few hundred yards, or at most for a mile or two. There are recorded examples, however, in which storms sweeping over intensely malarial regions have gathered up the abundant malaria and scattered it over communities living in salubrious districts, even as far away as thirty or forty miles, and so inflicting temporary epidemics of chills and fever upon neighborhoods commonly exempt from such visitations. I have shown in my History of the Small-pox Epidemic in Mobile in 1874—5, that the aerial transportation of the small-pox poison is not a prominent agency in the local extension of that disease, the greatest recorded distance that has been passed over in this way amounting to no more than six hundred yards, while as a rule the width of a street seems to furnish an insuperable barrier. There is no question connected with the propagation of zymotic diseases more important than this in its practical relations to the great problem of the protection of the public health, and it is not a little singular that our knowledge of it should be so incomplete and so unsatisfactory.

In the cases already mentioned, of malarial fevers and of small-pox, the problem of transportation is comparatively simple, because we know, in these cases, exactly under what circumstances, and in what localities, the germs of infection are generated, and have only to account for their dissemination. But in yellow fever, as we shall see presently, another element of uncertainty has to be considered, namely, whether the infectious germs are thrown off from the limiting surfaces of the bodies of the sick, fully matured, and in sufficient numbers to overpower the conservative energies of the bodies of healthy persons, into which they are immediately conveyed, or whether they are entangled in the alvine, or other excretions of the sick, and find their way into the bodies of healthy persons, only by some circuitous route, as seems to be the case in typhoid fever and cholera. But, waiving the discussion of this question for the present, the transportation of the germs of yellow fever through the medium of the atmosphere, may be freely admitted for short distances; as, for example, from one room of a house to an adjacent room of the same house, or, perhaps, from one side of a street to the other side. But can they be transported, in this way, from one town to another, or from one country to another across the waters of the dark blue sea? To these questions negative answers must be returned; and it must be accepted now, as a well established principle, that when yellow fever passes over wide intervals of space, it is always carried through some agency of human travel. That the atmospheric distribution of yellow fever is, indeed, of the most strictly limited character and extent, is evident from an immense number of facts. Take a few by way of illustration.

In the epidemic which occured in Gibralter in 1804, Colonel Fyers removed his family, consisting of fourteen persons, to Europa, and established a quarantine, and they all escaped. At the same time a regiment of troops, which was camped within forty yards of them, but not prevented from communication with the infected town, had four hundred and forty-two (442) cases out of an aggregate strength of six hundred and thirty-five (635), with one hundred and eighty-seven (187) deaths. Another precisely similar example occurred, also, during the same epidemic. Captain Dodd's family, seven in number, and Mr. Straitte's family, three in number, lived in detached houses, in strict seclusion, the distance between the two houses being three hundred (300) yards. On this intermediate space was encamped the Fifty-Fourth Regiment, consisting of seven hundred and forty-seven (747) men. Of these, four hundred and fifty-six (456) were attacked with the fever, and over one hundred (100) died; and yet not a single individual was affected in the two families mentioned, although living only a few yards from this pestilential camp. In the epidemic which desolated Barcelona in 1821, some very remarkable facts were observed with reference to the infection and exemption of the numerous convents of that city. The convents of the Capuchins, Los Angelos, Santa Theresa, San Juan de Jerusalem, the Hieranimites, and the Cannelites, observed the strictest seclusion, and not one of them had a single inmate infected, while all the convents which communicated with the city, had the greater number of the sisters attacked. Thus, the Magdelen had fifteen sisters, of whom all had the fever, and ten died; the Sisters of Jerusalem, with twenty-eight members, had eleven deaths; and several other convents suffered in about the same proportion. In Memphis, in 1873, the jail, surrounded by a high wall, and holding almost no intercourse with the outside world, although situated in the heart of the infected district, escaped without damage, and the same was true of the jail in Mobile in the same year. These examples show, very clearly, the extension of yellow fever cannot be very greatly under the influence of atmospheric currents.

It is true that there are facts connected with the progress of certain epidemics, which have been supposed to bear a different construction. In Charleston, for example, in 1871, the extension of the fever followed the direction of the prevailing wind, and the same coincidence, in a very marked way, was observed in Pensacola in 1873. Looking only to such cases as these, it is very natural to infer that the wind is at least one of the factors concerned in the onward march of the pestilence. But these cases are neutralized by others in which the facts give a different testimony.

It has even been suggested, by the New Orleans Board of Health, that the germs of yellow fever travel from lot to lot, and from square to square, not by flying through the air, but by crawling along the ground, at the rate of about forty feet a day; and it is upon this hypothesis that they base their practice of encircling infected localities with a sort of ring fence of carbolic acid, this *cordon sanitaire* being supposed to present an insuperable obstacle to the progress of the germs.

APPENDIX

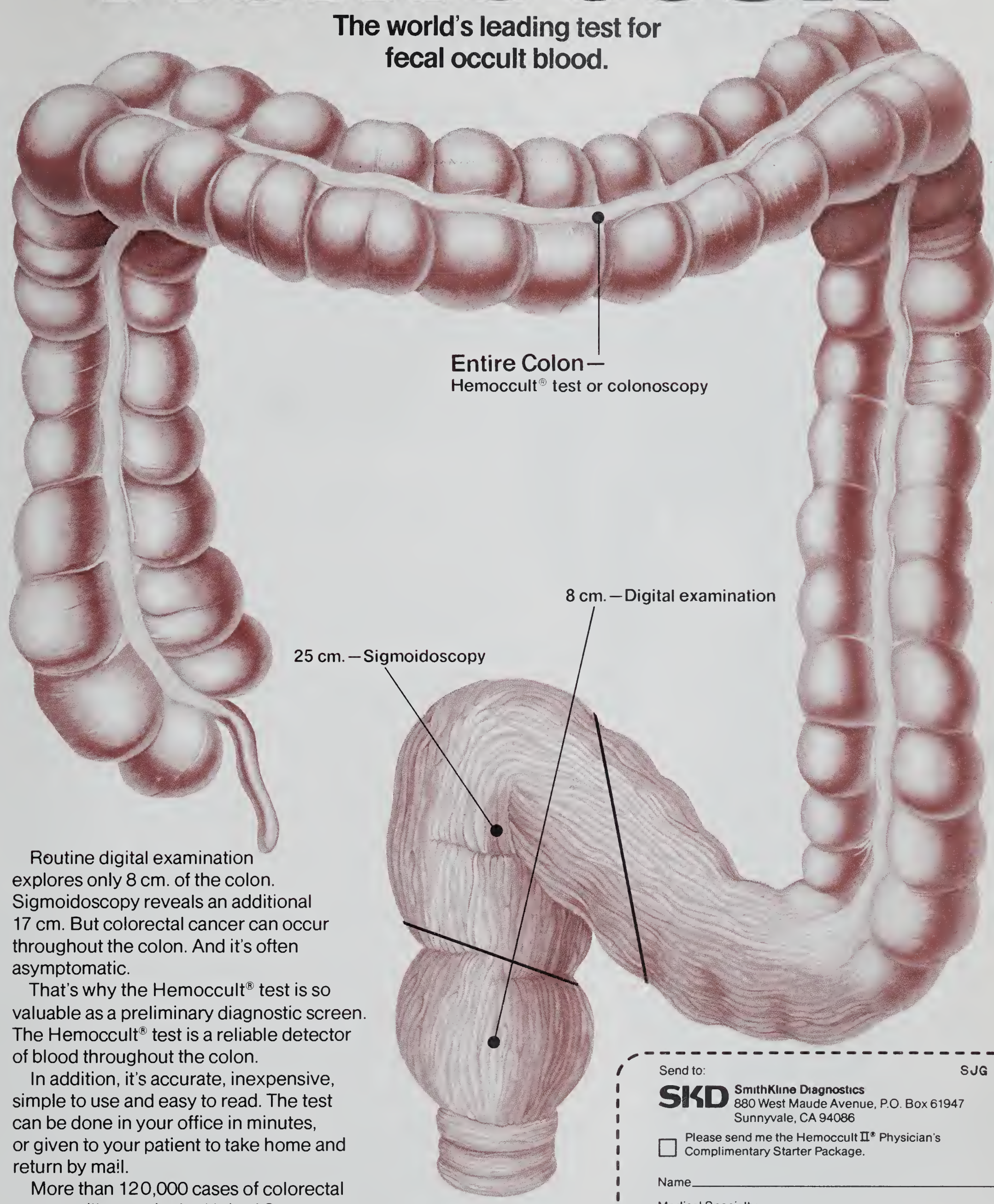
I add to this Essay the very complete tabular statement of the epidemics of yellow fever which have occurred in the United States, prepared by Dr. Ely McClelland, and published in the Second Annual Report of the Georgia State Board of Health:

TABULAR STATEMENT OF LOCALITIES IN THE UNITED STATES WHICH HAVE BEEN INFECTED WITH YELLOW FEVER.

YEAR OF EPIDEMIC.	LOCALITIES INFECTED.	ORIGIN OF THE INFECTION.
1693	Boston, Mass	Imported from Barbadoes.
1699	Philadelphia, Pa	Imported from Barbadoes.
	Charleston, S. C.	No record.
1702	New York City	Imported from St. Thomas.
1705	Mobile, Ala	No record.
1713	Charleston, S. C.	No record.
1728	Charleston, S. C.	No record.
1732	Charleston, S. C.	Imported from West Indies.
1739	Charleston, S. C.	Imported from West Indies.
1741	Philadelphia, Pa	Imported from Barbadoes.
1744	Philadelphia, Pa	Imported from West Indies.
1745	Charleston, S. C.	Imported from West Indies.
1745	New York City	No record.

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WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies: patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

SOUND OFF

THE NEED IS GREAT

Editor, The Journal:

The cost of providing quality medical education and supporting research is staggering. Many schools, even those with substantial endowments, lack the funding required. And their financial problems have been compounded in recent times because of spiraling costs and shrinking governmental subsidies.

Consequently, these institutions must depend increasingly on private sources to meet their needs and the **Schools of Medicine in Alabama are no exception.**

In a recent letter from Dr. James A. Pittman, Jr., Dean University of Alabama School of Medicine, the realities of the problems we face here in Alabama are quite clear. Dr. Pittman stated:

"This is particularly difficult for the School of Medicine at this time, since the Governor's budget includes a recommendation for a 19% reduction next year below this year's prorated expenditure level, which is already below the actual expenditure level for last year (1979-80). In addition, this is the third year in a row that the medical school has been prorated.

"At the same time, the federal budget is in such bad shape that major reductions in federal appropriations must be made, and this is obviously also impacting adversely on the School of Medicine. Attached is a sheet which summarizes the amounts received by the University of Alabama School of Medicine from AMA/ERF donations to all three campuses over the past eight years.

"The money has gone primarily for the MIST program (Medical Information Service by Telephone), summer student research stipends, initiation of the Tinsley R. Harrison Medical Student Society, and similar activities. At the present time we have prorated this year's budget by 11.6% below the amount originally appropriated, we have abolished the office of Student Counselling and the Office of Minority Affairs, and are considering abolishing several of the smaller departments. Obviously, there is a limit to how far we can go with this activity before the whole operation simply collapses. Any support we can get from the AMA/ERF would be greatly appreciated."

Auxiliary donations and fund-raising efforts for 1980-81 are not up to par as we had hoped they would be. Therefore, we are asking physicians and spouses of MASA to **join the 700 Club by donating $10 to AMA/ERF. With 700 people donating $10 to AMA/ERF a total of $7000** will be raised which will surpass totals of donations for the previous year. Please go beyond the call of duty for the future of medicine in Alabama. The cost of financing a medical education has soared and Alabama students need your help for their future!

Belong to the 700—By sending your name, county, name of medical school to receive your tax deductible donation, and check to our state AMA/ERF Chairman, Mrs. Robert Finchum, 1269 Branchwater Lane, Birmingham, Alabama 35216. Your interest and support will be appreciated very much.

Mrs. O. B. Carr, Jr.
President
Auxiliary To The Medical
Association of The State of
Alabama

Promises aren't made to be broken

Promises are only as good as the people who make them. So you should know and trust the people you rely on for your financial promises.



Mutual Assurance was founded on a promise to Alabama physicians—to offer reliable insurance protection every day, every year—at fair, competitive rates.

We continue our dedication to that promise.

Some insurance companies may make promises at lower rates. But promises are only as good as the people who make them.

Mutual Assurance Society of Alabama



Mrs. O. B. Carr, Jr.
President, A–MASA

AUXILIARY

Auxiliary/Medical Society: How To Make It a Team

"Everybody Recognize Auxiliary." That's the way to solve some of the problems of American medicine, according to Earl Thayer, executive secretary of the Wisconsin State Medical Society. "Because," he says, "the auxiliary is probably the single most unused asset of American medicine."

"Auxiliary members are a tremendous asset to the medical profession, and they have only the best interests of the medical profession as objectives. They are a volunteer force that has long been dedicated to the same principles as the medical profession. They're not just a social group. They're active, knowledgeable, adept, well-informed, and over 80,000 strong," stated Mylie E. Durham, Jr., MD, past president of the Texas Medical Association.

"Also auxilians have excellent entree to other organizations in the community through continual contact with civic and community groups and are established in every community as a strong, respected, viable organization, dedicated to the task of improving the quality of life and the health of the community, and they have been found to be tremendous fund raisers, excellent administrative assistants, outstanding membership getters, great public relations experts, and to possess remarkable expertise in community educational programs and projects."

Earl Thayer, Dr. Mylie Durham, Jr., and Mrs. George Pavey, cost containment chairman for the Washington State Medical Association Auxiliary; were seminar participants at the 1980 AMA Leadership Conference concerned with the topic of "The Auxiliary: Powerhouse Potential."

An important aspect of auxiliary/medical society cooperation, according to Dr. Durham, is that both organizations **want** to work together. "They must be willing to meet together, discuss the feasibility of cooperative programs, and decide on a realistic plan of action," he said. "You need to discuss together what areas could best benefit from cooperative efforts, and decide whether to try these efforts on a temporary basis or whether to set up a permanent program."

In Texas, where auxiliary members now serve on 21 medical association councils and committees, the first appointments to a medical association council were made in 1969 when "two auxiliary members were rather gingerly appointed to the TEXPAC Board." But, Dr. Durham noted, "They proved to be capable, contributing members."

So in 1974, the auxiliary legislative chairman was invited to attend some meetings of the TMA Council on Medical Legislation, and the next year, to attend all meetings as she has done ever since. "The positive contributions of the auxiliary members in these areas prompted the establishment of the program we have today," Dr. Durham states.

In 1977, auxiliary members were appointed as liaison representatives to 13 TMA councils and committees, in addition to the two serving on the TEXPAC Board. And in 1978, 20 auxiliary members were appointed, and the TMA House of Delegates approved the appointments

President-elect, Mrs. Rufus Lee; First Vice-President, Mrs. Robert Estock; District Vice-Presidents: NW, Mrs. Robert Rhyne; NE, Mrs. Andrew Brown; SW, Mrs. John Taylor; SE, Mrs. William Lazenby; Recording Secretary, Mrs. Ralph Braund; Treasurer, Mrs. Lamar Thomas.

on a permanent basis with reimbursement to auxiliary members made on the same basis as that to TMA members. If the Texas auxiliary has a corresponding committee, the chairman is automatically the one to serve on the TMA committee for the year she is chairman. The auxiliary president gives careful consideration to the people she appoints to chair those committees, Dr. Durham said, and files on the capabilities, interests, and activities of members in civic, as well as medical organization work are kept. Each appointment is discussed honestly between organizations at the end of each year, and it is decided if the auxiliary representation on a particular committee should be continued.

"Communication is absolutely essential," Dr. Durham said, "from the top to the bottom. The auxiliary president needs to be aware of the association's top priorities. Then the auxiliary needs to report to the medical association on existing programs, so that the medical association can decide which programs can benefit its priorities. When programs or projects which will be mutually beneficial are to be discussed at medical association executive board meetings, the auxiliary president should be invited to attend. And the auxiliary should have a medical association advisor, a physician knowledgeable in medical association activity, whom she can consult."

"Stall approval, cooperation, and understanding of the cooperative effort is also essential," Dr. Durham added. "Staff people already provide us with necessary communication and assistance to both groups." There is also a need for well-defined goals, according to Earl Thayer. "You can't make the auxiliary a wastebasket, where you throw them everything that you don't want to spend time on. You give them the best, top-notch, priority projects you can think of. In Wisconsin, they're legislation, political action, and community health education. "Community health education", he continued, "is this medical profession's biggest, best, finest public image-making, public relations activity—and there is no one more qualified to handle community health education than the auxiliary."

An activity "that was particularly impressive to me," Dr. Durham added, "was auxiliary assistance with TMA's number one priority last year—effective cost containment and public education on preventive health care. The Texas auxiliary did an outstanding job of getting our information to the public. One small county auxiliary with 50 members was responsible for distributing more than 25,000 brochures for the project. More than 500,000 brochures were distributed statewide through the cooperative efforts of the auxiliary members and the physicians working together.

Dr. Durham had a message for his medical association colleagues:

"We need all the help we can get, so if you're not already working as a closely knit team with your medical auxiliary, I strongly urge you to quit wasting time and start right now. You'll soon be just as amazed as many of the Texas Medical Association members have been at the progress you will suddenly begin to make. The potential is unlimited, and I'm sure we've only scratched the surface in Texas. But we know for sure: the auxiliary is a powerhouse, and a valuable one."

In Alabama the medical auxiliary is very proud of the close working relationship shared with MASA. We don't always do things as big as they do in Texas, but you must admit Dr. Durham offered food for thought for both organizations. A-MASA is in partnership with medicine to assist the Medical Association of the State of Alabama, which is our number one objective. We are your auxiliary and we feel a very important one. We have worked on many important medical projects such as our combined efforts in support of health education legislation for the children in Alabama schools and immunization.

Auxiliary members attending the A-MASA Convention in April 22-24 will be asked to participate in a Communications Workshop conducted by the Burroughs-Wellcome Company. The purpose of the workshop is to educate a cadre of Auxiliary members on how to interview physicians on various health matters and get the interviews on their local radio stations. Following an initial briefing session of the do's and don'ts of interviewing physicians, Auxilians in small groups of 6-8 will interview guest MASA physician-members. Over 100 suggested health care program topics with interview questions are available from the Burroughs-Wellcome Company or through the AMA. The program topics are provided by the Medical Division of the Burroughs-Wellcome Company as a communications service to medical and media professionals.

The Auxiliary is very pleased to present this professional workshop in communications to our members as a response to a request made to the Auxiliary from MASAs Executive Director Mr. Lon Conner. This program has already been started by Auxilians in North Carolina and Georgia. We appreciate Mr. Conner's interest in this program and his assigning Mr. Anthony Crowe, MASA Health Planning and Public Relations staff member, to assist the auxiliary in program development and implementation.

Your local medical societies will be contacted before the program is implemented on a local level and that's where you come in! County auxilians will not only be asking for your approval of the communications program but for your cooperation and participation as well. Won't your patients just love hearing their local doctors on the radio! We think so! Aren't you excited!! I knew you would be!!!

Mary

*Facets, published by AMA-A, Inc. Volume 42/Number I Jan. 1981, Page 19.

ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.



Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Please see back cover.

Her next attack of cystitis may require

the Bactrim™ 3-system counterattack



ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

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of the Medical Association of the State of Alabama
VOL. 50, NO. 10, APRIL, 1981

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Dr. Black: *Youthful Old Timer*

See Page 7



Feelings vs.

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to *de*crease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

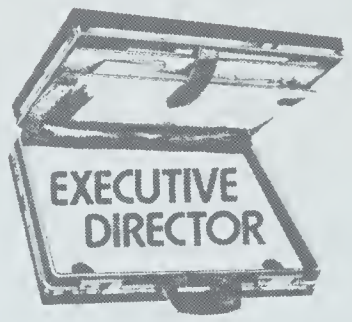
The FACT is they are right.

For a brief summary of product information on Valium (diazepam/Roche) Ⓥ, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® (IV)
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults*. Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d initially, increasing as needed and tolerated (not for use under 6 months).
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50, available in trays of 10.

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Nutley, New Jersey 07110



Cost Containment

Perhaps the most serious strategic blunder organized medicine can make is to become complacent now that the white hats seem to outnumber the black ones in Washington.

A long time ago, a man who had suffered the slings and arrows of public life moaned:"I can handle my enemies, but save me from my friends."

American medicine and industry have traditionally been close allies. That alliance, like most, is now severely strained. Industry has discovered that a major cost item in its overhead, one that does not seem amenable to economies or market forces, is the health care benefits it pays for in its fringe package.

That has now grown so large, health care cost containment is a central issue in the corporate boardrooms of America. In many of the major companies of the nation, health care issues have been placed in offices of senior executives, so great is the belief that the company's ability to compete in the future may depend, in an important way, on this overhead item.

After beating back efforts to intrude further in medical marketplace, Congress reluctantly acquiesced in a wait and see posture on the Voluntary Effort. The message was plain: fail at your peril.

Industry is looking for alternatives. A conservative Congress is looking for alternatives to cut down the mounting federal outlay.

Both have served ample notice that if the medical profession fails to keep costs from rising too fast, somebody else is going to do the job for the profession.

Our new President, Dr. Kendall Black, has picked cost containment as one of the major objectives for his year in office. Three meetings have already been scheduled.

This deserves the support of every Alabama physician, who must know by now that, while the profession has friends in industry and in Washington, business is business. Cutting budgets and overhead has top priority in both places.

Lon

S. Lon Conner

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PRESIDENT'S PAGE



C. A. Lightcap, M. D.
President

The Mighty River of Medicine

When I think of all the Presidents of the Medical Association of the State of Alabama whose services preceded mine, I am filled with pride.

But I am also humble, for some of the true pioneers of medicine are numbered in that legion, men who helped build the state in their selfless fight against disease, and who contributed greatly to the advance of our science and art far beyond any boundaries of state, region or continent.

When at times I fear that my small contributions are not worthy to be compared with theirs, I am consoled by the thought that medicine has always advanced by the joined efforts of all of us, those who have gone before and those who will follow, our ranks swelling from a handful to literally hundreds of thousands in endless procession, as a mighty river moves to the sea from countless tributaries.

The efforts of each of us, however small they may seem to us, add to the collective effort, our endless toil against disease and shaping of health policy.

It is this realization, that our strength flows from our unity, that gives me the greatest satisfaction. In no other profession do all the participants have such unity of purpose as do those in the endless cavalcade of medicine.

When physicians are tempted to let their disagreements put them at cross purposes with each other, their energies are dissipated and sometimes cancelled out. Disagreement and dissent are vital forces in the march of medicine, always have been and always will be, but only to the extent that we may occasionally differ on how to get where we are going, never on *where* we are going. The unwritten law of medicine is that the health of mankind is always first in our minds and in whatever we undertake.

And so it is on this note of humility and yet enormous satisfaction that I thank you for the high honor of serving as your President. I particularly want to thank the various Councils for all their good work, the Board of Censors for its support and guidance, Mr. Lon Conner, executive director, and his fine staff in Montgomery.

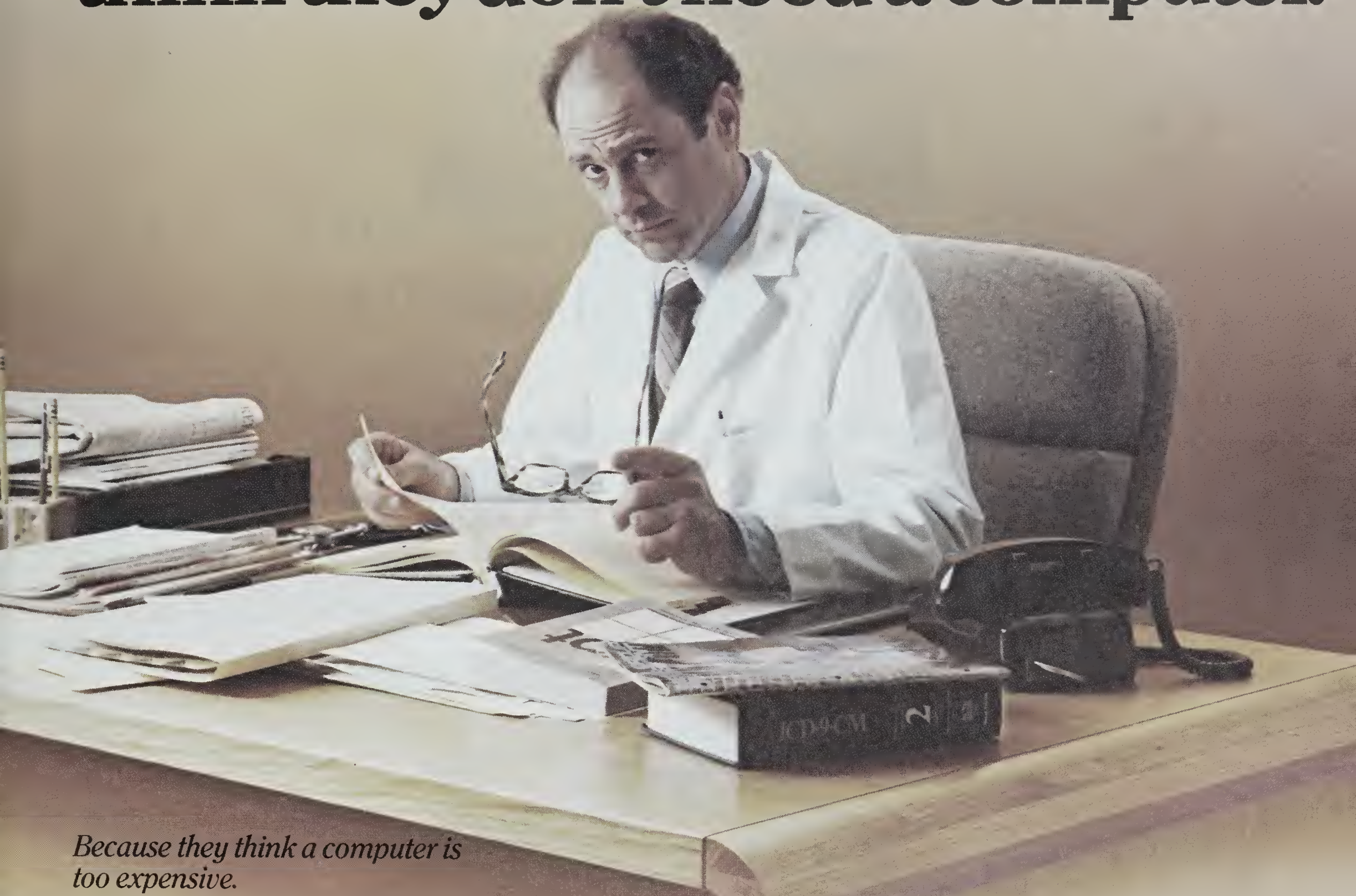
I will always cherish this memory, fully aware that in the aggregate power of our great profession, its members past and present, my otherwise inadequate abilities have been multiplied manyfold and my limitations compensated for by the strengths of others.

That is indeed the power of our common cause, the everyday phenomenon of many hands easily lifting the heaviest tree where one pair could not budge it.

My pride and my humility I pass to my successor, Dr. Kendall Black of Huntsville, confident that he too will experience, as I have, the wisdom and the dreams of the past flowing through him into the boundless future.

C. A. Lightcap, M.D.

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NEOSPORIN® Ointment

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Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

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- It's effective therapy for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses.
- It provides broad-spectrum overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep.
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- It contains three antibiotics that are rarely used systemically.
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Effective • Economical • Convenient • Recommendable

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

Wellcome

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Research Triangle Park
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PROFILE

THE NEW PRESIDENT: *YOUTHFUL OLD TIMER*

by
William H. McDonald

At age 41, J. Kendall Black, Jr., M. D., is one of the youngest Presidents in MASA history.

That is, measured by chronological age at time of taking office. If you look at it another way, the number of years he has practiced medicine, he's right up there with the oldest, the way he figures it.

By Dr. Black's curious reckoning, he has been practicing about 34 years. He started at age 7, give or take a year, when he tutored his surgeon uncle, Hughey M. Weir, M. D., while Dr. Weir was in medical school.

Dr. Black first saw the light of day at West End Baptist Hospital in Birmingham, grew up in the Bell View Heights section, went to Central Park Grammar School to Ensley High School.

It was in grammar school that he started practicing medicine. It was 1946. His uncle had recently returned from service in World War II to resume his studies. He was one of the first students in the new four year University of Alabama School of Medicine, which had first moved from Tuscaloosa to Birmingham.

It was a time when medical students rented their microscopes for home use and checked out bones and slides for study.

Enter Professor of Medicine J. Kendall Black, Jr., age 7. Knowing the diagnosis, young Kendall would hand Uncle Hughey slides and demand identification. They would do that hour after hour through countless slides until the Professor was satisfied that his student knew his subject.

Then they might go to a bone, also checked out at the medical school for home study. The Professor would have the book before him as Uncle Hughey struggled through his quizzes about it.

And so on. This was the way Dr. Black entered medicine: "I just got started practicing medicine—or teaching medicine or learning medicine—right then and there."

LAB TECH

When Kendall was 14, Uncle Hughey, then in general practice in Birmingham, hired his old Professor as his lab tech.

"I did CBCs and urinalyses," Dr. Black recalls. I learned to help take x-rays, develop the film, and to give shots, among other things.

"So I just grew up in medicine. I never thought of doing anything else. I wasn't interested in business or engineering. Just medicine. I never really sat down and decided to study medicine, the way some did. I simply never thought of doing anything else."

After graduation from Ensley High, young Black went on to follow in his uncle's footsteps, as he had been programmed to do, having already been serving as his Uncle's medical factotum.

He completed his undergraduate studies at the University in three years, under the combined degree program then in effect, and went on to medical school, where his superior freshman year grades in biochemistry qualified him to work in one of the labs between terms.

Working in the lab on one of the surgical wards, he became interested in surgery. After his sophomore year, he was assigned to orthopedics, where he started wrapping plaster, putting in nuts and bolts, and seeing some orthopedic patients.

'OLD DOC BLACK'

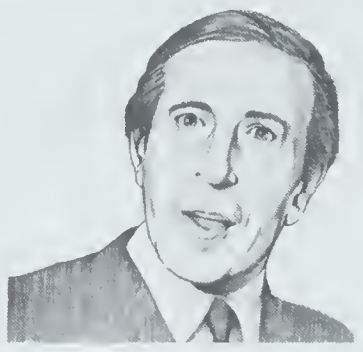
His interest in orthopedic surgery began there, but he put it on hold for a time. In his senior year, he was again rotated to orthopedics and served as house doctor in the emergency room, putting casts on broken bones and the rest ("That was back before we got into this malpractice mess").

While he liked orthopedics, he subsequently went on Dr. Champ Lyons' service and thought for a time his

FROM DIETARY COMPLAINTS



"Too Bland"



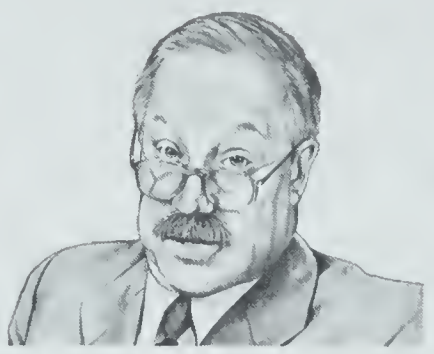
"Tasteless"



"No Variety"



"Hard To Cook"



"Only Cottage Cheese?"



"Daddy's Dull Diet"

TO COMPLIANCE



INTRODUCING *New Age*™ SANDWICH SLICES

- **90% less cholesterol**
- **75% less saturated fat**

Now, New Age—a cheese substitute made with vegetable oil—provides the good taste of process cheese without its restrictively high cholesterol content.

New Age has 90% less cholesterol, 75% less saturated fat, yet provides all the protein, vitamins and minerals of process cheese... good news for all health-conscious patients!

AMERICAN
SWISS
SMOKEY
HOT PEPPER



New Age™ is consistent with the cholesterol-control, low-fat recommendations of the third edition of **The American Heart Association Cookbook.**

future was in cardiac surgery. He signed a contract to return after his two-year Air Force tour, but during that time Dr. Lyons died, and with him Dr. Black's interest in cardiac surgery.

During those Air Force years in Montgomery, he supplemented his income by working nights and weekends at St. Margaret's hospital:

"If somebody came in and needed a cast put on, old Doc Black did it. Old Doc Black did everything, in fact."

Having lost interest in returning to Birmingham after the death of his mentor, his attention turned to Jacksonville, Florida, where Uncle Hughey had trained. In addition to other attractions, the pay was better in Jacksonville, so off he went.

Two rotations in orthopedics revived his old interest and he made his decision, influenced somewhat by the fact that the Southern Medical Journal accepted a paper he had written on fractures of the patella. Here was a first-year resident presenting a scientific paper before the Southern Medical Association assembled in Miami—heady stuff that could not be denied.

He had 3½ years in orthopedics at Jacksonville and six months at the University of Florida College of Medicine, Gainsville, under a brilliant and inspirational orthopedic surgeon.

While rotating in orthopedic surgery, Dr. Black got to know several anesthesiologists who were good friends of Dr. Bob Mitchell, who was practicing in Huntsville. As it turned out, Dr. Mitchell was looking for someone to join his group.

Hence, Dr. Black's move to Huntsville, fourth man in the group. In early 1975, Dr. Black went solo. He now has one partner.

HUNTSVILLE'S SOFT LANDING

Huntsville has gone through a major transition in the time he has been in practice there. After the moonshot days of wine & roses, national priorities were drastically altered. Huntsville soon ceased to be the international mecca of astrophysicists and the other high tech personnel it had been during the boom years. It is still doing important space work, of course, as on the Shuttle, but the boom is over, reflected by the fact that population growth over the past decade was only 2%.

But Huntsville has made a beautiful soft landing in its return to earth. From a federal to private employment ratio of 2 to 1 back in the days of Von Braun, Huntsville has almost reversed that—to 1½ to 1 private to federal.

"This reflects in a positive way," Dr. Black says (using the language of the Business Administration student he now is on the side), the way we switched from a pure space related activity to a more stable industrial production employment base."

At the heart of the industry that the city has attracted are electronic firms, spin-offs from the space technology—just the kind of industry every Sun Belt community is seeking.

In the short space of a generation, then, Huntsville has moved from an agricultural economy, to one of the highest technologies anywhere, then to a finely balanced compromise between the two, with high tech, low polluting light industry.

DR. BLACK'S MILIEU

This then is the milieu of a youthful President whose programs for 1981 reflect the kind of future planning that has been the everyday conversation of his friends and neighbors since he started practice.

You could hardly expect a President who has heard his tennis friends and nextdoor neighbors talk about galaxies, escape velocities and the like to be content to serve a year of tranquil business as usual—now could you?

The skeleton outlines of some of Dr. Black's programs, which follow, may seem visionary. But the present writer can remember reluctantly consenting to interview Werner Von Braun in a Montgomery beer garden back when everyone thought he was quite mad with his damfool notions about going to the moon. Few would listen to him, and those who did would consign his notions to the trivia basket along with inventors of perpetual motion machines and anti-gravity devices. That was long before Sputnik jarred the nation into the knowledge that the Soviet Union, at least, took space seriously.

Dr. Black may induce the same kind of incredulous looks when he suggests that should blow off in simultaneous polar orbits on the following azimuths: Membership Recruiting, Long Range Planning and Development, Cost Containment.

MEMBERSHIP RECRUITING

The new tack on this is that Dr. Black intends to appoint the AMA alternate delegates as the recruiting committee. The function of the committee, with all its expertise gathered at AMA meetings, will be as much education as recruiting. It will be the duty of the committee to spread the word on the advantages of membership. It will address such questions as dues structure, billing methods, resident physician section, medical student section ("I want to recruit those kids when they first get into medical school").

Membership recruiting will include practice management seminars for medical students, to show them early on what private practice costs, what kind of insurance they need, equipment available, loans and financing, etc. This would be continued and expanded for residents, who should be taught such vital business as how to negotiate a contract with a partnership or specialty group, the determinants of office size, formulae for maximum efficiency of personnel, and so on.

Having developed this relationship early, Dr. Black hopes, medical students and residents will develop lifelong involvement in and fealty to the Association.

Additionally, medical students and residents need information on how much their money will be cut with the alteration of capitation payment and limitations on student loans.

More importantly, perhaps, they must be helped coping with the predicted physician surplus, of which they may be a part. He wants students and residents on mini-councils of the Association on up through the ultimate representation, perhaps, in the reference committees and on the floor at annual session.

COST CONTAINMENT

Dr. Black envisions a tripartite committee. The first section, scheduled May 14, will be between physicians and industry members, no others need apply. Core of the group will be the Jefferson County Steering Committee. Each member will be supplied, in advance, with previous cost containment studies, including recent ones by the AMA. Subjects addressed will include the consumer, the provider, the hospital, technology, financing and payment mechanisms, the regulatory process.

Having finished its labors, the first committee will report its findings with a summary to be sent out to those in the second conference, which will be limited to the health care industry, to hospitals, labs, instrument makers, the pharmaceutical companies, etc.

The third and final committee will refine, combine and synthesize the first two reports in a consensus that will identify to physicians possible practice changes and other ways to exert an influence over more cost effective medical care. There will be no brickbats, no coercion—goals only.

LONG RANGE PLANNING AND DEVELOPMENT

Dr. Black:

"We need some kind of chart for the waters ahead. It will have to be corrected as we go along; most charts require that. But we have got to have some kind of plan of where we think we are heading, what kind of services will be required in the future, what the challenges will be and how we plan to face them. We need to know what kind of staff we will need to serve what kind of group. We need to think of philosophical goals, storage areas for CME material, what kind of service we need for specialty societies, whether we need a larger board and more subcommittees."

He will appoint such a committee drawing from blood and new blood, North and South, East and West, rural and urban. There will be no member of the Board of Censors on the committee, which will be expected to report quarterly on such matters as students, FMGs, residency programs, rural health care, NPs, PAs, hospitals, etc.

"I want this to be my think tank, and I want it to work every year. I can't guarantee that it will work but one year, but maybe the Board will make it permanent."

AD HOC BUILDING COMMITTEE

A subcommittee of the Long Range Planning Committee, this will be "Montgomery folks," physicians selected in Montgomery to consider the space, style, and other factors of future plant requirements.

THE FUTURE BECKONS

Dr. Black is a restless man. He is also highly competitive, dearly devoted to the gentle art of clobbering (or being clobbered by) friends at tennis and racketball. He has a list of things he has not seen or done but intends to see or do. These include: river rafting, tractor pull contest, Kentucky Derby, rodeo, visiting a major distillery, seeing a quarter horse claiming race. Things like that.

His first love after hours is sports medicine, principally as football team physician. He also sculpts, does woodworking and is a gourmet cook of no mean ability, currently exploring the potentials of Wok cooking.

In August, he will join a 30-member medical group on an African tour designed to relate health care needs on that continent to the American experience. Beginning in South Africa, the tour will traverse several of the black nations and terminate in Egypt.

Chance of a lifetime, says the child prodigy medical professor, who, for all his jesting and sometimes ribald humor, takes seriously the 19th Century motto of MASA—*Nos Etiam Speraramus Meliora*.

The translation, "we also hope for better things," has been parodied into contemporary slang by the energetic and unstoppable Dr. Black, who seems to be saying:

"You ain't seen nothing yet."

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Pioneers in Medicine
For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine. Some of our better known products are Lopurin™ , Ru-Tuss® and Ru-Vert® . This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K® • TWIN-K-CI™



For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin – Pramoxine HCl – Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications.
See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.



For Potassium Supplementation Improved Compliance...

TWIN-K®

Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement

- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.
  The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

In Cases with Chloride Deficiency...

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.



F-E-P CREME®

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme	½ ounce (15 gm) tubes	NDC 0524-0026-51
F-E-P Creme Plain	½ ounce (15 gm) tubes	NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by extemal stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16

Federal law prohibits dispensing without prescription.

February 1980

TWIN-K®

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz) NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-CI™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbital and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-CI is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-CI may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-CI be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-CI is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-CI taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes:

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-CI are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

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MEGAPHONE

ANOTHER LOOK AT ALABAMA PHYSICIANS' PERCEPTIONS ABOUT CME NEEDS

by

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In the Spring of 1976, a survey was developed by the Division of Continuing Medical Education in the University of Alabama School of Medicine to determine continuing education needs as they were perceived by physicians licensed to practice in Alabama.

The results have been used broadly by the departments and divisions of the School of Medicine to assist in developing worthwhile continuing education activities. The data has been shared with other CME providers in Alabama for their use[15].

Under the direction of George T. Smith, M.D., M.S., Associate Dean and Director of the division, a similar survey was designed to reassess Alabama physicians' perceived needs in the spring of 1980. Again, the data can supplement the other determinants used to develop continuing education activities.

The medical school faculties are still closest to research developments and have certain perceptions of the needs. The University of Alabama faculty continues to be fortunate to have MIST line data available to them to assist in determining a perception of needs regarding clinical applicability.

The concept still exists that mortality-morbidity data is helpful in assessing needs. However, practicing physicians make individual observations that express their CME needs in a relevant manner.

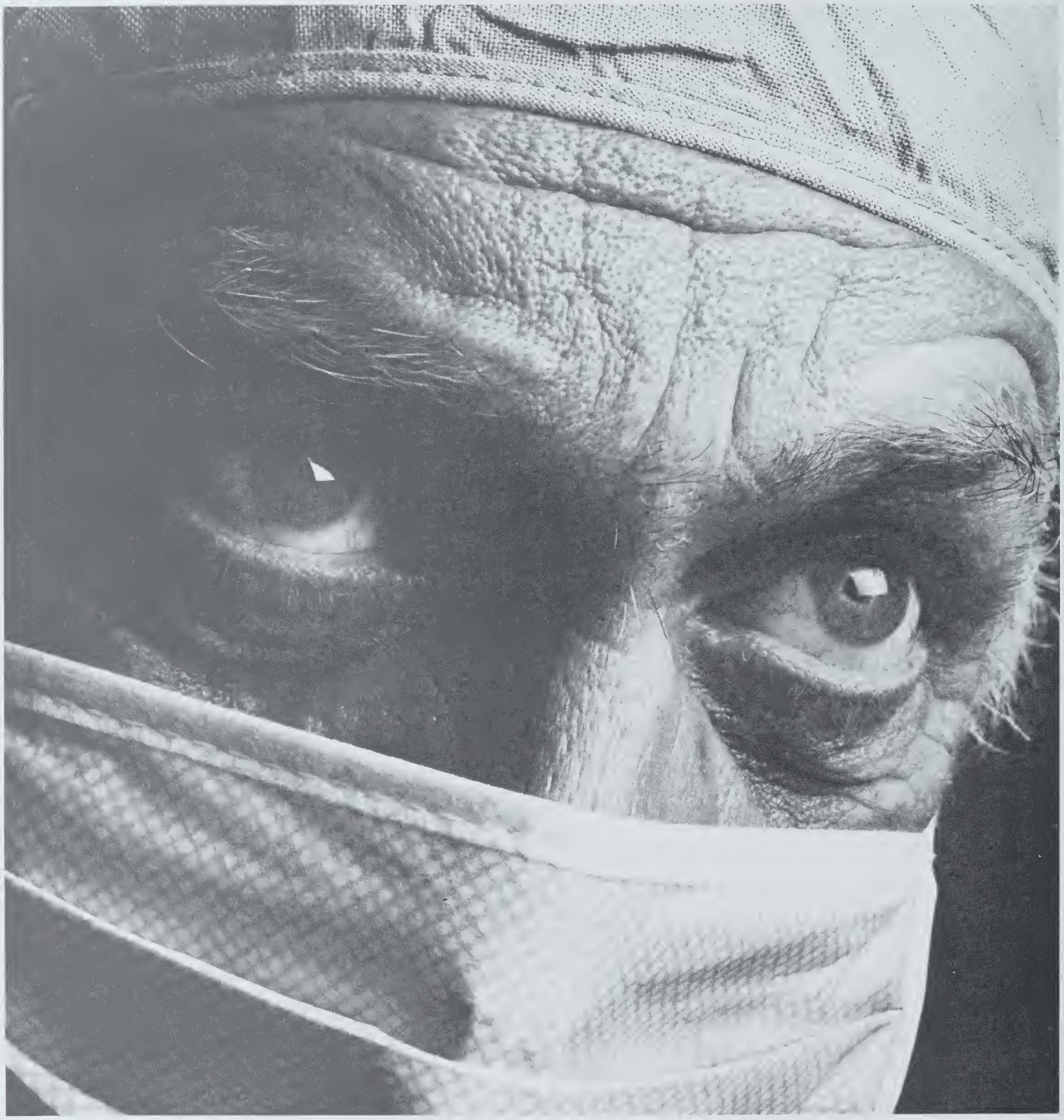
In the DCME experience, physicians' expressions of perceived needs is valuable input for developing CME programs. This method of assessing needs is basic to starting a series of specific analyses.

In 1976, the literature contained many samples of surveys of what physicians do and do not like about CME, the testing of achievements,[1] and descriptive or administrative statistics.[2-5] Youmans studied physicians' behavior changes produced by continuing education in 1935.[6] Several investigators have tried to describe the perceived needs and interests of physicians in CME.[7-8] Their results confirmed thinking that a general assessment survey of perceived needs is an appropriate starting point. More recently, the literature shows that surveys of practicing physicians' perceptions are increasing as determinants of what CME providers use in planning programs.[9-14] Therefore, the 1980 survey was only slightly modified to reassess the perceived needs of practicing physicians licensed in Alabama.

In July, 1980, 6250 questionnaires were mailed to physicians licensed to practice in the state of Alabama. Fifteen percent (942) of those physicians responded to the questionnaire.

Twenty-six specialties were represented with widespread representation among the various practice arrangements; 40% are solo practitioners, 27% were in small group practice, 16% were in large groups and 17% were in institutional practice only. The dominant professional activity was in patient care, both in the office care and the hospital setting.

Fifteen percent were involved in research, education, or administration. There was a significant dispersion among age groups responding as evidenced by the relative percentages seen between the last five decades of experience of this population's years in medical school, internship and residency ranging from 1926 to 1980.



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Little Interest in One-Day

With regards to the type of educational activities preferred, two-and three-day seminars were the most popular. One-day seminars declined in interest. There was continued interest expressed in favor of week-end seminars, both locally and in resort areas. There was an increase in interest in self-instructional programs, while slight interest was shown for half day lectures and intermittent offerings (e. g., one day per week for 10 weeks).

As for educational methods, seminars and lectures were overwhelmingly preferred with a strong showing for clinical conferences and panel discussions. Lab work, while not overly popular, did gain in interest as a preferred method. Very few responders indicated interest in library work, and the use of telephone or radio as a preferred educational method.

Of 866 responses to the item surveying the interest in postgraduate traineeships, i. e., miniresidencies ranging from one to eight weeks and not leading to specialty certification, 491 (44%) expressed an interest in such a training program. The preference for indepth study with small numbers of faculty showed 715 (85%) responders.

When asked about the preferred geographical location for continuing education activities to take place 286 (30%) prefer activities within 50 miles and 238 (25%), within 100 miles. Twenty-two percent (215) prefer a medical school setting while 32% (304) would select a resort for continuing education activities. It should be noted that a significant number of responders indicated both medical schools and resorts as preferred CME sites. Only eleven percent indicated an interest in activity at their home locality.

As a group, the responders showed preference for continuing education activities to take place in all twelve months. There was slightly more interest for the summer months than before and a continued decline in interest during the holiday season of November and December. However, 50% of those surveyed had no preference with regards to the time of year continuing education takes place.

Weekends Preferred

Preference for specific days of the week for continuing education was substantially more. Again, each day had some preference shown. But, most responders were partial to Friday, Saturday and Sunday.

When attempting to rank continuing education interests from among the list of 76 topics, it was necessary to delete each number one rating since the responder of a given specialty almost unanimously rates his specialty topic number one. If the specialties were counted, it would skew the ranking in favor of one or more of the specialty groups having the most respondents.

As it might be expected, the highest ranking topics were topics of acute or life threatening consequences, of high-incidence diseases, or of the larger general topics. Interest waned as the topics were of more chronic and less threatening consequences, of more exotic disease or substance, or of less application to direct patient medical care. All topics received at least a minimal consideration in the ranking.

In asking the responders to indicate what they perceived to be their greatest specific interest in continuing education, the most significant responses indicated keeping abreast of the latest innovations in medical care procedures. The other topics were primarily related to clinical problems and generally clustered around one or two specialty groups.

In answering the question about who sponsors the CME activities that the physicians attend, 480 (51%) attend activities sponsored by specialty societies, 452 (48%) attend regional medical school activities and 418 (44%) attend CME offerings at local hospitals. Fewer percentages were counted for activities sponsored by county medical societies, distant medical schools or, state and national associations. Less than 5% of the activities are sponsored by commercial firms or government agencies.

Self-Instruction is Popular

In summary, among the responders there was considerable diversity among medical specialties, the various practice arrangements and the length of time in service. The factor they had most in common was their predominant professional activity of taking care of patients.

While a two- or three-day seminar was the most preferred type of educational activity, it should be noted that there was interest in all the types of activity, with a growing interest in self-instructional activity.

The methods that involve "teacher-student-in person" relationships were the most preferred with substantial interest in all methods except: library work, and the use of telephone and radio. Interest in lab work did show a slight gain. Less than half were interested in a mini-residency.

For geographical location of activities, almost one-third preferred CME activities within fifty or one hundred miles from home. Apparently, at least 32% prefer continuing education at a resort and 22% prefer a medical school setting. Eleven percent were more interested in local activity.

There was not a significant preference regarding the months during the year that activity should take place. Friday, Saturday and Sunday were the most preferred days of the week for activity to occur.

Obviously, each specialty group ranked the topic of their respective specialties with the most interest. Beyond that ranking, the interests appeared to align the

topics according to the larger general topics or the more urgent and difficult problems of patient care above the topics less problematic and with less application to patient care. When asked about specific interests, the overwhelming concern was managing time schedules to keep abreast of the latest innovations.

Conclusions regarding the survey continue to provide encouragement for Continuing Medical Education in Alabama. The percentage of physicians who responded to the survey is indicative of a high level of interest. The diversity of the group reporting indicates that a broad base of the physician population responded to this general survey. This allows a valid group of bases to which the more specific surveys have and will be addressed, i.e., malignant disease issues can be specifically addressed to cancer specialists or others with a strong interest in malignancies.

Minority Not Ignored

The variety of preferences in the topics, types and methods of CME activity and preferred times and places will continue to be helpful in planning and implementing continuing medical education in Alabama. The majority preferences are a signal for the Division of Continuing Medical Education at the University of Alabama School of Medicine to continue most of its directions. At the same time, the minority interests are being considered and will not be ignored.

The task of continuing medical education in Alabama remains too large for any one agency to handle. The 1976 survey assisted many CME providers in Alabama. It is hoped that this 1980 survey and its following specific developments can be even more helpful to agencies committed to supporting the improvement of patient care delivery by planning and implementing continuing medical education in Alabama.

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CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitra activity than ather drugs in the ampicillin class and its use shauld be canfined ta these indicatians: Treatment af the follawing infectians:
RESPIRATORY TRACT
Tansillitis and pharyngitis caused by Graup A beta-hemalytic streptacacci
Bronchitis and pneumonia caused by *S. pneumaniae* (formerly *D. pneumaniae*)
Otitis media caused by *S. pneumaniae* (farmerly *D. pneumaniae*) and *H. influenzae*
Acute exacerbation af chranic branchitis caused by *H. influenzae**
*Thaugh clinical improvement has been shown, bacteriologic cures cannat be expected in all patients with chronic respiratary disease due ta *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infectians caused by Group A beta-hemalytic streptacacci and staphylacacci, nanpenicillinase praducers.
URINARY TRACT INFECTIONS caused by *E. cali* and *P. mirabilis*. (This drug should not be used in any *E. cali* and *P. mirabilis* infectians ather than urinary tract.)
NOTE: Perfarm cultures and susceptibility tests initially and during treatment to monitar effectiveness of therapy and susceptibility af bacteria. Therapy may be instituted prior ta results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reoctian to penicillins.
Warnings Cyclacillin should anly be prescribed for the indications listed herein.
Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recammended indications.
Serious and occasianal fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is mare frequent fallawing parenteral use, it has occurred in patients on oral penicillins. These reactians are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions ta penicillins, cephalosporins and other allergens. If allergic reactian occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should alsa be administered as indicated.
Precautions Pralanged use af antibiotics may pramate avergrawth af nansusceptible organisms. If superinfectian occurs, take apprapriate measures.
PREGNANCY: Pregnancy Categary B. Repraductian studies performed in mice and rats at dases up to 10 times the human dase revealed na evidence af impaired fertility ar harm ta the fetus due to cyclacillin. There are, hawever, na adequate and wellcontralled studies in pregnant wamen. Because animal reproduction studies are nat always predictive af human respanse, use this drug during pregnancy anly if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise cautian when cyclacillin is given ta a nursing woman.
Adverse Reactions Oral cyclacillin is generally well talerated. As with ather penicillins, untoward sensitivity reactians are likely, particularly in thase wha previausly demonstrated penicillin hypersensitivity ar with histary af allergy, asthma, hay fever, or urticaria. Adverse reactions reparted with cyclacillin: diarrhea (in appraximately 1 aut of 20 potients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in oppraximately 1 in 60). Isolated instances af headache, dizziness, abdaminal pain, vaginitis, and urticaria have been reparted. (See WARNINGS) Other less frequent adverse reactians which may occur and are reparted with other penicillins are anemia, thrombocytapenia, thrombocytapenic purpura, leukapenia, neutrapenia and easinaphilia. These reactians are usually reversible an discantinuation af therapy.
As with ather semisynthetic penicillins, SGOT elevations have been reparted.
As with antibiatic therapy generally, continue treatment at least 48 ta 72 haurs after patient becames asymptamatic ar until bacterial eradicatian is evidenced. In Group A beta-hemalytic streptacoccal infectians, at least 10 days' treatment is recommended ta guard against risk af rheumatic fever ar glamerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and passibly far several manths after. Persistent infectian may require treatment far several weeks.
Cyclacillin is nat indicated in children under 2 months af age.
Patients with Renal Failure Cyclacillin may be safely administered ta patients with reduced renal functian. Due ta pralonged serum half-life, patients with variaus degrees of renal impairment may require change in dasage level (see DOSAGE AND ADMINISTRATION in package insert).
Dasage (Give in equally spaced dases)

INFECTION	ADULTS	CHILDREN*
Respiratary Tract Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Branchitis and Pneumania		
Mild ar Moderate Infectians	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infectians	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 ta 100 mg/kg/day†
Skin & Skin Structures	250 mg ta 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dasage shauld nat result in a dase higher than that far adults.
†depending an severity

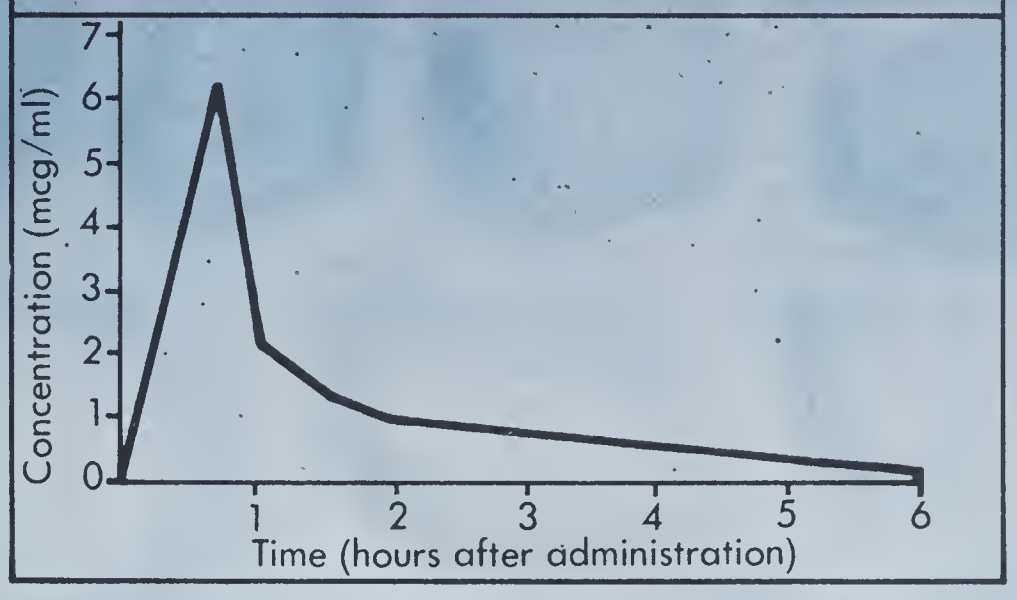
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Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T^{a} ½ values far single aral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data an file, Wyeth Laboratories.

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Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

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Mary F. Ronan, R. N.
Nursing Division

MONTGOMERY COUNTY HEALTH DEPARTMENT
MONTGOMERY, ALABAMA

During a three-year period (January 1978 through December 1980) 57 infants/children/adults who were screened (Medicaid Screening and Refugee Screening) in the Montgomery County Health Department were found to have G. lamblia cysts in stool specimens ("IP" mailing case and bottle with 5% formalin). Examination of stool specimens was performed by the Alabama Department of Public Health Clinical Laboratory in Montgomery.

It was decided to treat all these clients, 12 of whom were refugees, even though they were asymptomatic. Different drugs and regimens were used in an effort to determine the best therapy. The nurses made a concerted effort to see that clients received the drugs in the dosages prescribed.

An arbitrary time of one month post-therapy was chosen for reexamination of the feces. In most cases one stool specimen was obtained and examined. At this time, also, white blood cell counts and differentials were obtained on those who had received Flagyl or Aralen-Flagyl therapy.

Results of our study are presented, along with a review of some of the literature on the subject.

SEX AND AGE GROUPS OF CLIENTS

	Birth-5 Yrs.	6-10 Yrs.	11-15 Yrs.	16-20 Yrs.	20 Yrs.	Total
Males	11	10	4	2	2	29
Females	11	12	3	2	0	29
	22	22	7	4	2	57

This table shows that males and females were equally infested. Our youngest client was an 11 month male; the oldest, a 31 year old male.The table also indicates that the majority of clients fall into the 10 year age group. The two clients over 20 years of age were refugees.

TYPE THERAPY AND ONE-MONTH POST THERAPY STOOL EXAM FOLLOW-UP

	Negative	Positive	Failed to Get Stool Exam
Aralen-Flagyl	11	1	6
Flagyl	7	1	3
Furazolidone	0	0	1
Atabrine	22	4	1
Total	40	6	11

We first used a combination of Aralen-Flagyl on 18 clients. The one positive post-therapy client was treated with Flagyl alone and became negative. Flagyl was initially used on 11 clients, with 7 becoming negative. One infant who was treated with Furazolidone moved from the community and no results were obtained. Of the 27 clients treated initially with Atabrine, 22 had negative post-therapy stool exams.

Of those 6 who had positive post-therapy stool exams, 5 were treated with Atabrine; 3 became negative, 2 failed to get repeat stool exams. One client who had initially received Aralen-Flagyl was treated with Flagyl and became negative.

White blood cell counts and differentials on some of the clients who received Flagyl or Aralen-Flagyl therapy were within normal limits. No significant clinical side-effects occurred with any of the drugs. Although our numbers are not statistically significant, because of the good results obtained with Atabrine therapy, we now use only this drug in treating clients with Giardia.

GIARDIASIS - REVIEW OF THE LITERATURE

Giardiasis is a protozoan infection caused by a pear-shaped flagellate, Giardia Lamblia (G. intestinalis, Lamblis intestinalis).[1] Cosmopolitan in its distribution but most frequently found in the tropics and subtropics, it is estimated that 10 to 15 percent of the world's population (7 percent in the United States) is parasitized by this organism.[2] Distribution varies with economic, hygienic and sanitary conditions.[3] It is the most common proto-

zoan infection of the intestine in temperate climates. It is both an indigenous and an imported disease in the United States. There have been several outbreaks, in Colorado, Oregon, Washington, New York and New Hampshire.[4]

Opinions vary as to prevalence rates. One author states that rates are generally highest in the 5-to-10 year age group.[3] Another states that the highest incidence occurs in the 1-to-2 year age group.[2] It is also prevalent in patients with immunoglobulin deficiencies, and is a cause of "travelers" diarrhea."[5] Prevalence is higher in institutions.[6]

The source of infestation is human feces, with the mouth being the portal of entry.[5] The organisms are transmitted in food and water or directly from person to person, but most commonly from contaminated water supplies.[3,7] The effect of chlorination on Giardia cysts is unknown, but probably lethal in standard concentrations.[6] There is a recent report of an outbreak of foodborne giardiasis in a Minnesota Public School. The authors strongly encourage public-health officials to consider the possibility of foodborne transmission in any apparent outbreak of giardiasis.[8] Some outbreaks of symptomatic giardiasis among campers and hikers who acquired the disease from drinking the water from remote mountain streams suggest wild or domestic animals, possibly cats, as carriers of the parasite.[4] An individual may be communicable the entire period of infection. Carrier rate in different areas of the United States may range between 1.5 and 20 percent, depending on the community and age group surveyed.

The incubation period is variable.[9] In experimental infections, incubation periods range from 6 to 22 days. In a waterborne epidemic in the United States, clinical illnesses occurred 1 to 4 weeks after exposure.[6] The normal habitat for the flagellate is the duodenum and the upper jejunum where it may persist for years, or disappear spontaneously, especially in older children and adults. Relatively few other organisms are found here. The pathogenicity of G. lamblia is unpredictable and the virulence factors are poorly understood. The mere presence of Giardia should not be equated with disease.[2] However, in severe giardiasis, damage and inflammatory changes of duodenal and jejunal mucosal cells may occur.[6] G. lamblia apparently causes no extraintestinal disease.[2]

The great majority of people who harbor G. Lamblia are asymptomatic. However, children, especially, may have a chronic watery diarrhea, or pale stools containing mucus, or steatorrhea; abdominal cramping, malaise, weight loss, abdominal distention and flatulence, and concomitant malabsorption.[5,7,10] Diarrhea may alternate with constipation. The epigastric pain may resemble that of peptic ulcer.[10]

Diagnosis is usually based upon identification of cysts and/or trophozoites (vegetative stage) in the fresh stool, particularly during acute infestation.[1,7] If stools are repeatedly negative, duodenal intubation and aspiration may be necessary to demonstrate the cysts and/or touch preparation of an intestinal mucosal biopsy, or preferably Beal's string test (entails swallowing a weighted gelatin capsule attached to a nylon thread, which is retrieved after four hours and the material on the end of the thread is examined microscopically).[11] Cultivation of Giardia in vitro has been achieved but is not a practical diagnostic procedure. No serologic test is available for the diagnosis of this disease.[2]

G. Lamblia was probably the first described protozoan. In 1681, Antony van Leeuwenhoek, in examining his own diarrheic feces microscopically, described what he saw as "animalcules." It is thought by many that what he saw was Giardia. Easy to identify, it is like a face staring back at you out of the microscope.[2]

The trophozoite is pear-shaped, anteriorly broad and rounded and tapering to a point not unlike a tennis racket. It is convex dorsally with a ventral attachment disc with which it attaches itself to the intestinal epithelium. There are sets of identical structures on either side of the median line. When stained there are two nuclei with large central karyosomes, two axostyles, two blepharoplasts and four pairs of flagella.[11] It is actively motile in fresh stool, with an irregular characteristic progression or "tumbling" motility.[2] It reproduces by longitudinal binary fission. It measures approximately 7 by 14 um. Trophozoites appear in the stool only in patients with very rapid bowel transit times.[10]

The smooth and thick-walled ellipsoidal cysts are 10 to 15 u by 6 to 12 u and have two to four nuclei with curved rods or axostyles; many of the trophozoite structures may be seen in the cysts.[11] When the cysts are ingested by another human they encyst, and trophozoites emerge in the small intestine where, if conditions are right, they multiply and establish a new infection.[2]

Several drugs may be used in treatment of giardiasis. There are varying opinions as to which is most successful.

1. *Quinacrine hydrochloride* (Atabrine, mepacrine, Atorine) is the drug of choice for children and when Giardia coexists with Entamoeba histolytica.[10] In 1 to 2 days after starting therapy, most parasitized patients lose their symptoms and organisms.[2] Tablets are effective in a dosage of 100 mg t. i. d. x 5 days for adults (maximum 300 mg/day). In children the following schedule may be used based upon 2 mg/kg t. i. d. x 5 days (maximum 300 mg/day):

8 years or older	0.1 Gm. tab. t. i. d. x 5 days
4-8 years	0.05 Gm. (½ tab.) t. i. d. x 5 days
2-4 years	0.05 Gm. (½ tab.) b. i. d. x 5 days

It should not be used in infants less than 1 month of age.[12] Some adverse reactions to quinacrine therapy are vomiting, vertigo, headache; psychosis, blood dyscrasia, ocular damage, rash, hepatic necrosis. Quinacrine has a bitter taste. It may also stain the skin yellow,

but psychosis does not occur at the dosage levels previously given.[10]

1. *Furoxone* may be used to treat infants as follows:

5 mg/kg/day in 4 equally divided doses x 10 days (maximum 400 mg).

The liquid preparation, Furazolidone contains 50 mg/15cc. or 50 mg./tbs. or 50 mg/3 tsp.

3. Metronidazole (Flagyl) is a successful drug, with few side effects.[1] However, it has not been approved for such usage in children because it has been reported to be associated with cancer in experimental animals.[7,1] It is considered investigational by the Food and Drug Administration. It should not be given to patients with blood dyscrasia or active organic central nervous system disease.[12] In adults, good cure rates have been obtained with single doses of 2 grams.[10] Or a dosage schedule may be used as follows:

40-50 mg/kg/day given in 3 doses for 5 to 10 days.[12]

An alternative is 250 mg t. i. d. x 10 days.

In infants and children:

5 mg/kg t. i. d., with maximum of 750 mg/day.

4. *Aralen* (Chloroquine phosphate) for 3 days, followed with *Flagyl* for 7 days may also be used. Dosage of Aralen Phosphate tablets is:

10 years and older	1 g followed by 0.5 g after 6-8 hours and then 0.5 g on the next 2 days (2.5 g in 3 days)
5-10 years	Give one-half the adult dosage
Up to 5 years	Give correspondingly smaller dosages.

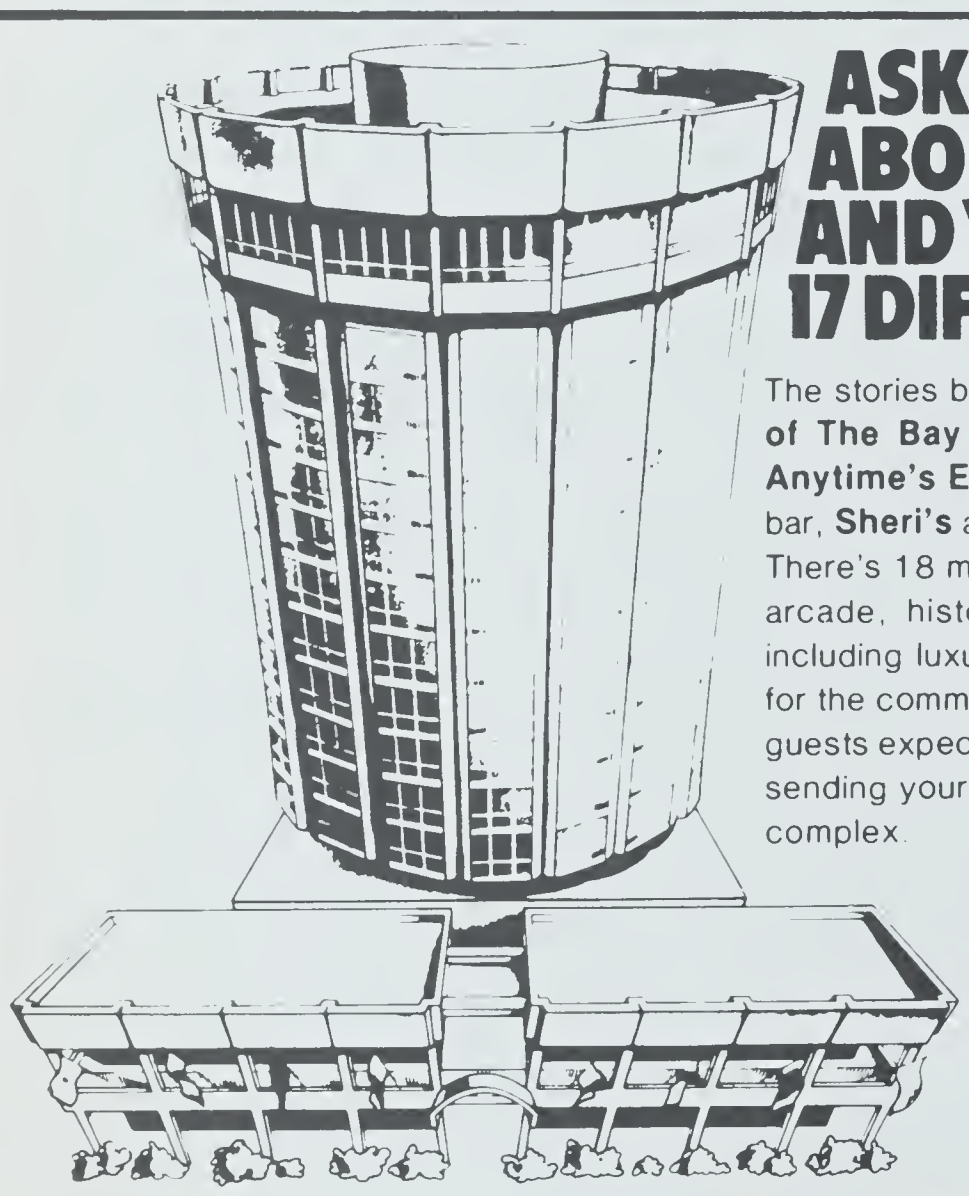
Both Flagyl and Quinacrine have about an 80 percent cure rate, and in the event of failure of one drug the other can be tried.[10] Relapses may occur with either drug.[6]

In none of the references was there mention of method of follow-up.

Preventive measures include education in personal hygiene of families, and personnel and inmates of institutions; sanitary disposal of feces; protection of public water supplies against fecal contamination.[6]

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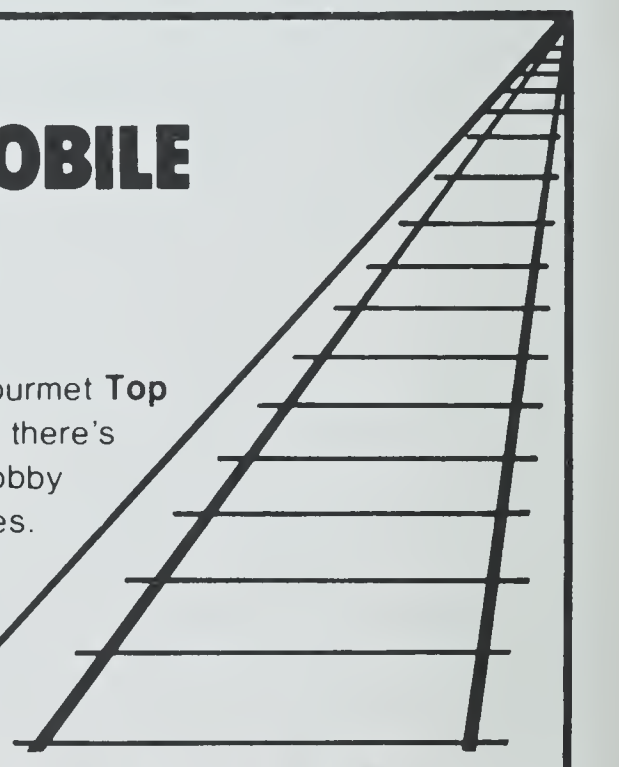


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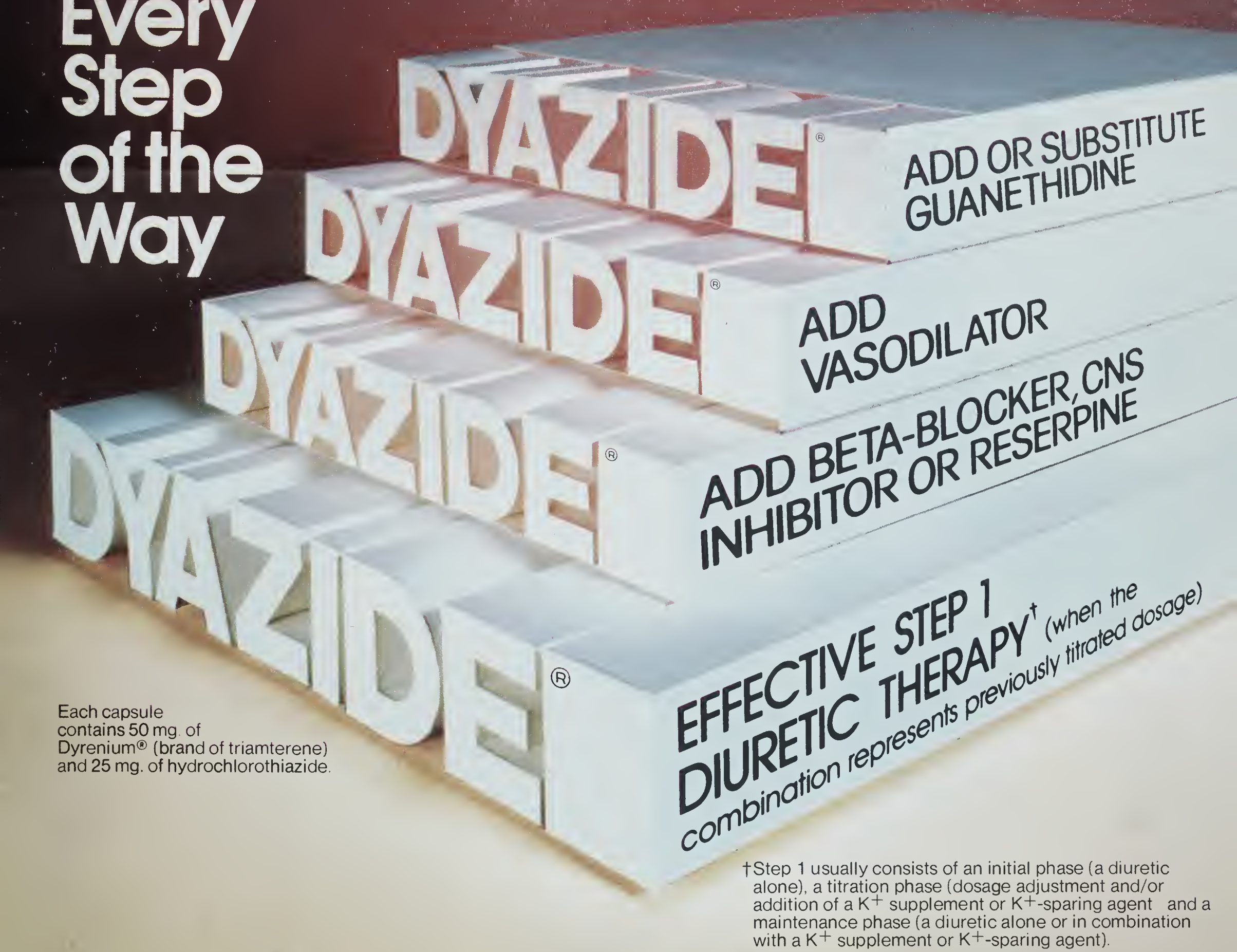
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Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

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Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in postsympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

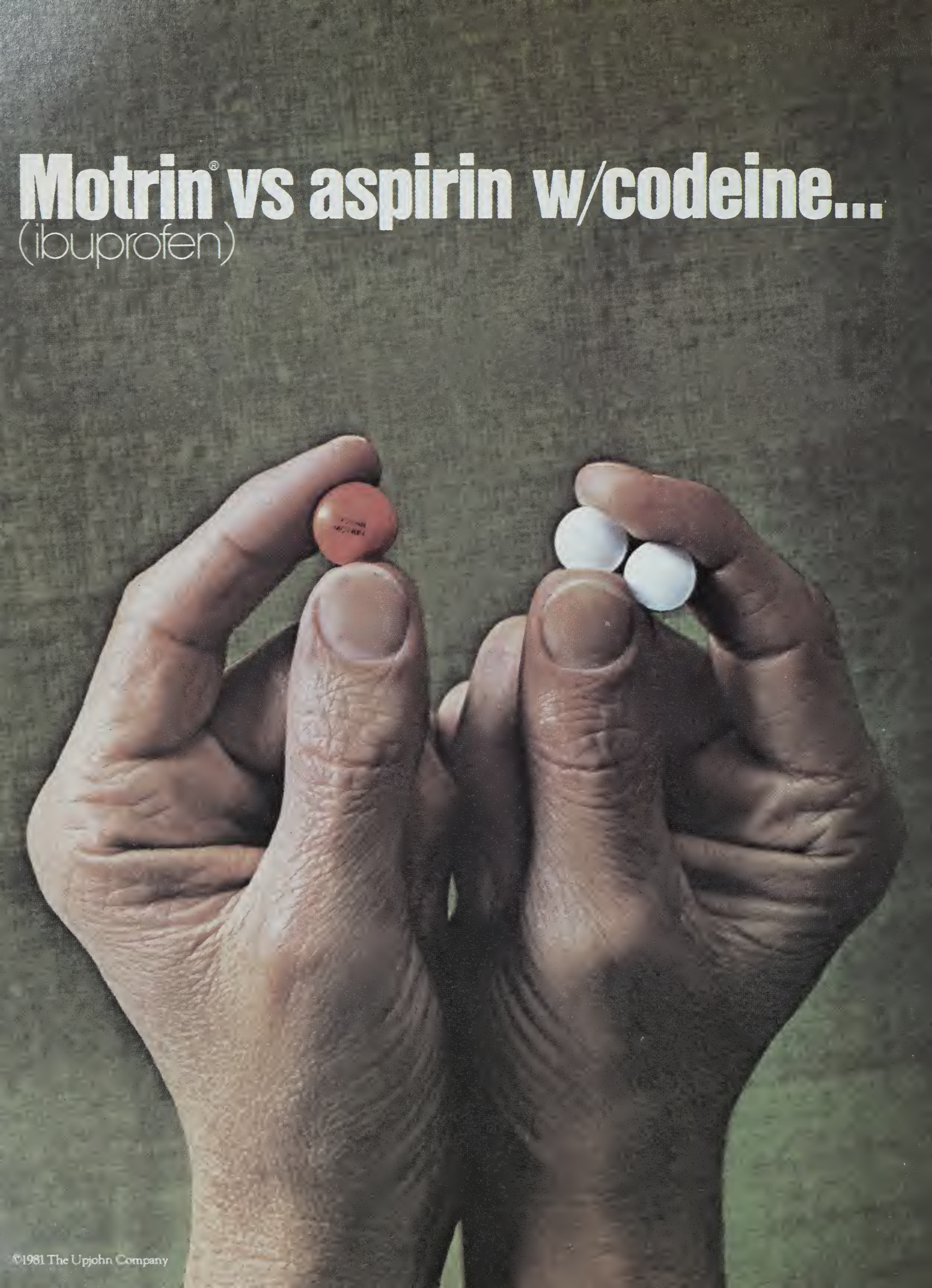
Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

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Motrin® vs aspirin w/codeine...
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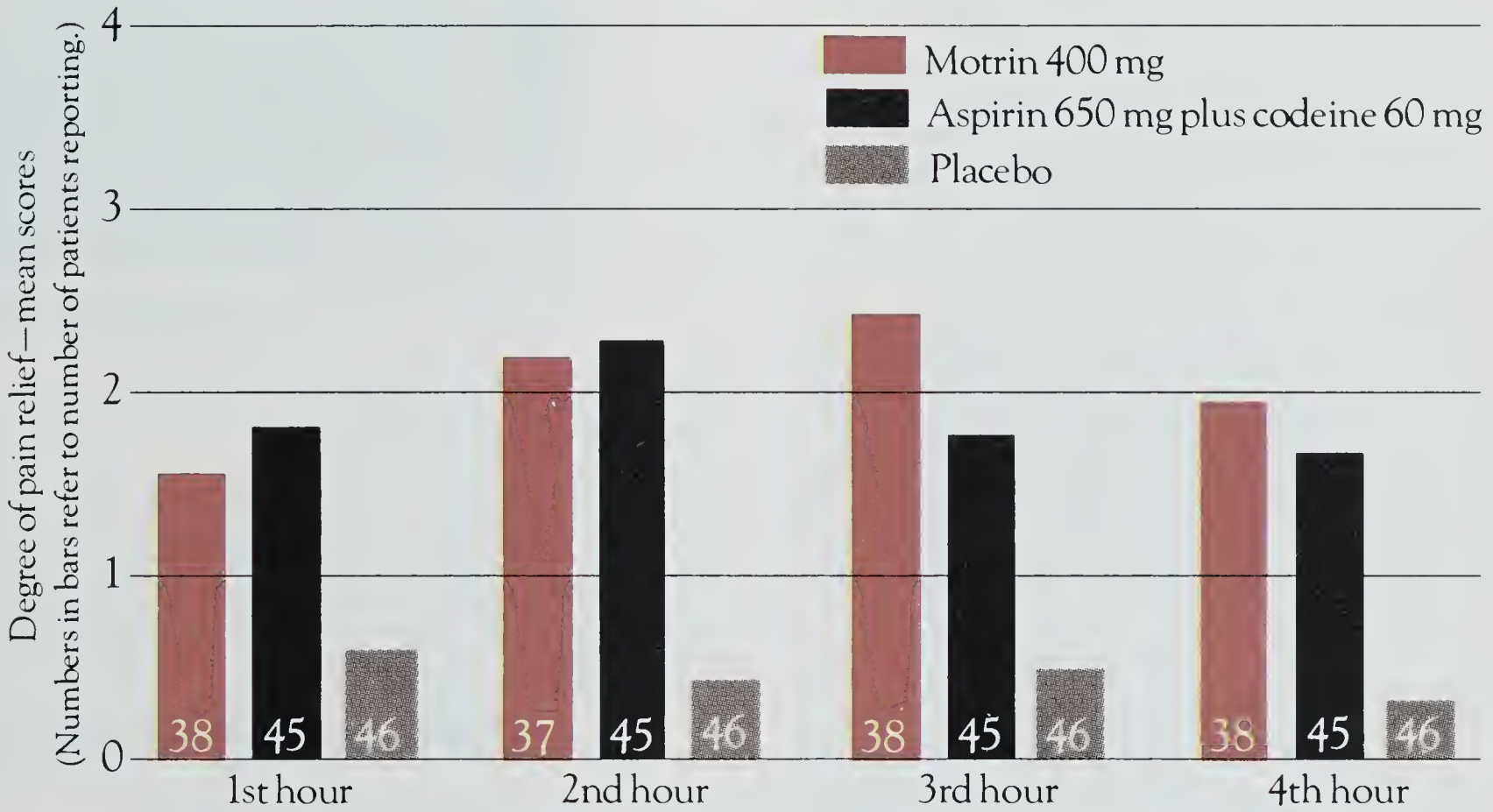


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compare the analgesic effect

A *Motrin* 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients. In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the *Motrin* and aspirin-with-codeine groups... with *Motrin* being significantly more effective ($p = 0.03$) at the three-hour interval. Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief
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• Not a narcotic • Not addictive • Not habit forming • Nonscheduled • Acts peripherally • Relieves pain rapidly • Relieves inflammation • Indicated in acute and chronic pain • Well tolerated (The most common side effect with *Motrin* is mild gastrointestinal disturbance.)

Please turn the page for a brief summary of prescribing information.

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Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d.
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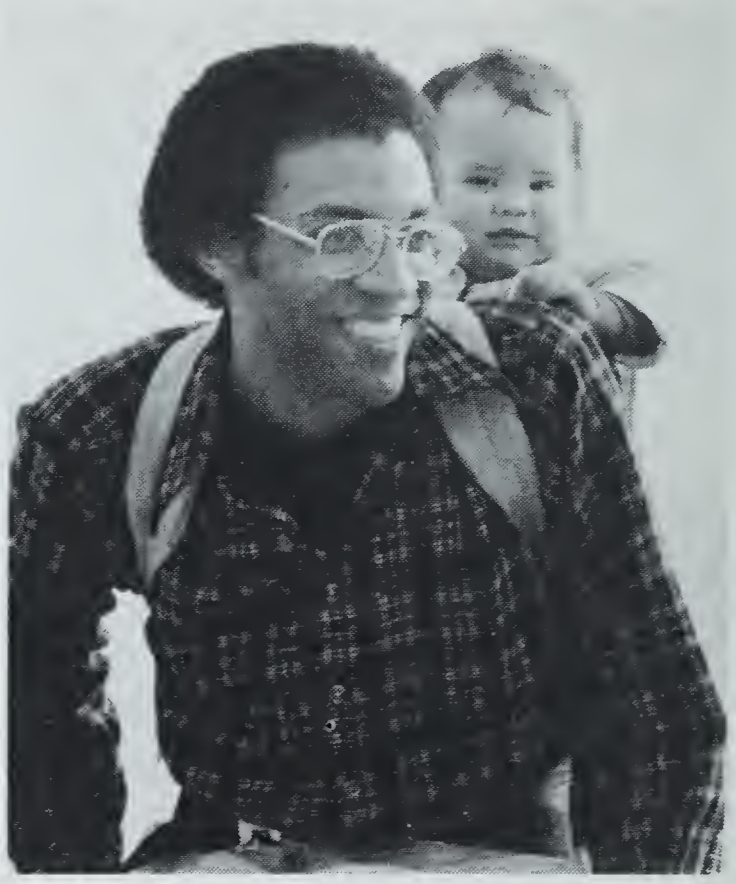
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SCIENTIFIC

Intra Nasal Ethmoidectomy and Concurrent Procedures

by
J.S. Taylor, M.D.
P.V. Crocker, M.D.
J.S. Keebler, M.D.

ABSTRACT

In this review of 526 intranasal ethmoidectomy procedures, there was a complication rate of 2.5% *with no blindness, meningitis, or deaths. The rationale for associated concurrent procedures is presented. The use of an absorbable hemostatic sinus sponge and an easily removable telfa nasal packing made possible a two night hospital stay in over 90%* of these patients.

INTRODUCTION

In the past, the intranasal ethmoidectomy has been reported to be a very dangerous procedure and the preferred routes were the transantral and the external approach. Several years ago, Freedman and Kern[1] gave an excellent report on this subject with only a 2.8% complication rate and no deaths or blindness in 1,000 consecutive operations.

The intranasal approach has several advantages over the other routes: avoidance of problems associated with external and intraoral incisions, and improved visibility and accessibility especially to the anterior cells. Nasoantral windows in the inferior meatus were made almost routinely in case the maxillary ostia had been damaged and to allow inspection and excisional biopsy of any masses in the antra. Usually the Caldwell Luc approach has not been necessary after learning to do wide antrostomies, and avoidance of the complications and facial swelling from the intraoral procedure has been very gratifying. Of the thirty Caldwell Luc cases, twenty-six were performed prior to 1972 and only 4 since then. This procedure is reserved for long standing or unresponsive cases or those where adequate inspection or biopsy of the antrum is impossible through the antrostomy.

Stripping of the antral and ethmoid lining has not been routinely performed except in the most severe cases. Removal of nondiseased sinus lining is not only ineffective, but may result in closure of the small natural ostium of the maxillary sinus. If the antrostomy closes as it does in about 20% of the cases , the resulting cavity has no ventilating opening and must be reoperated. This may account for some of the misconceptions concerning the lack of good response after sinus surgery. We all hear repeatedly from our bad results, but not often enough from those with good results.

Several of the references have very good historical reviews and I will not belabor that point, however, I believe that the extent of surgery on the turbinates is still not agreed upon. A guide we have found helpful is to operate on only one turbinate in either nostril during one procedure. As much as one half of the middle or inferior turbinate can be removed with little or no disturbance in nasal physiology and no excessive crusting. If the middle turbinates are resected then only outfracture of the inferior turbinates should be performed usually. If the inferior turbinates are resected, avoid anything more than mild crushing of the middle turbinate when doing infracture and outfracture for visibility.

Concerning vasomotor rhinitis, Richardson[6] stated that this condition "may be considered chronic priaprism of the inferior turbinate" erectile tissue and recommended repeated submucosal cauterization. In this study, the inferior turbinates were treated with submucous resection and trimming for the first five years, then a technique of outfracture and electrical mucosal cauterization was used which greatly decreased the amount of

postoperative bleeding. Over the past year, resection of up to about half of the inferior turbinate has been resumed as it has given better, longer lasting results. At first, the middle turbinates were crushed slightly when very large, and removed with polyposis; now the lateral half is removed frequently with almost total removal when polyps are present.

Intranasal Ethmoidectomy and Concurrent Procedures		Age	
Ethmoidectomy	526	1-10	4
Antrostomy	418	11-20	28
Turbinoplasty	440	21-30	50
Septoplasty	195	31-40	65
Polypectomy	80	41-50	41
Sphenoidotomy	56	51-60	31
Caldwell Luc	30	61-70	21
Rhinoplasty	6	71-80	4
Blepharoplasty	6		284
Oroantral fistula closure	3	Sex	
Septal perforation closure	1		
Intranasal DCR	1	Male	157
Nasofrontal duct reconstruction	3	Female	127
			284

Other concurrent procedures performed were septoplasty, when indicated, and antrostomy. It is suggested that the nasoantral windows and inferior turbinate resection be performed before the septoplasty to avoid damaging or fracturing the remaining septal support. Sphenoid sinus exploration was performed in some cases to see if we were missing infections that the X-rays did not reveal. We found better correlation between the X-ray and surgical findings here than with the ethmoids. Kidder et al mentioned the lack of X-ray findings in ethmoiditis. In our experience there seems to be about 20% lack of correlation between the X-ray and surgical diagnosis. About half of these are false positives and the other half are false negatives. A better indication than X-ray alone is what the patient tells you. This will be more fully elaborated on later.

Other procedures such as oroantral fistula closure, repair of septal perforation, intranasal dacryocystorhinostomy, nasofrontal duct reconstruction will not be discussed at length. The microscopic intranasal DCR procedure is a very interesting approach and about eighteen have been done with a success rate of about eighty percent. This is easier, less deforming, and gives better results generally than the external approach. A few rhinoplasty and blepharoplasty cases are also listed and only one will be discussed in more detail.

Of the eighty polypectomy cases, 10 required more than one surgery for a "cure" rate of 70% over 1-10 years. Some were failures and recurred inspite of everything that could be done. All of these patients were told to stop smoking, to stop using strong perfumed products (especially Avon, Estee Lauder, and others), and to avoid all aspirin containing drugs. Many of these were maintained empirically on bacterial vaccine self injections weekly. A few of the patients underwent allergic desensitization also. Beclomethasone intranasal spray was prescribed if the polyps returned.

The septoplasty and turbinoplasty combination in general has given better and longer lasting results than either alone so we usually do both procedures where indicated. Most of the patients noted a marked improvement in their nasal airway after about 2 weeks. Quite a few stated that their chest felt less tight and they were able to rest better. Headache improvement or alleviation was frequently found especially in those patients with severely infected ethmoids, but a few had residual headaches. Some of these were found to have temporomandibular joint difficulty in addition and many with this problem were relieved with corrective dental treatment. Mucopurulent drainage has been a very bothersome complaint for two to three weeks postoperatively in some patients, but this usually clears with conservative measures.

Intranasal Ethmoidectomy

Of the 526 intranasal ethmoidectomy procedures performed on 284 patients, fourteen were revisions. These surgeries were done between 1966 and 1979 and the data presented was obtained from a review of the office charts and operative records.

Indications:

1) Chronic ethmoiditis with or without polyps
2) Benign and malignant tumors (diagnostic)
3) "Ethmoid" headache
4) Acute ethmoiditis (complicated & unresponsive)

The intranasal ethmoidectomy is our approach for chronic ethmoid sinusitis with or without polyps. With polyps, the procedure is more extensive and the middle turbinate is almost completely removed, but preservation of the attachment area is attempted. When no polyps are present at least the medial half of the middle turbinate is preserved.

Removal of nasal polyps by snare frequently results in their prompt return within months. Even with extensive polyp removal and ethmoid and middle turbinate resection the recurrence rate has been around 20-40 percent. The patient should understand this before surgery and be prepared for careful postoperative follow up for years.

Besides chronic ethmoiditis, other conditions such as benign and malignant tumors may require surgical exploration. Three malignancies were encountered in our series but most of the mucoceles and mucopyoceles were considered incidental findings and not recorded.

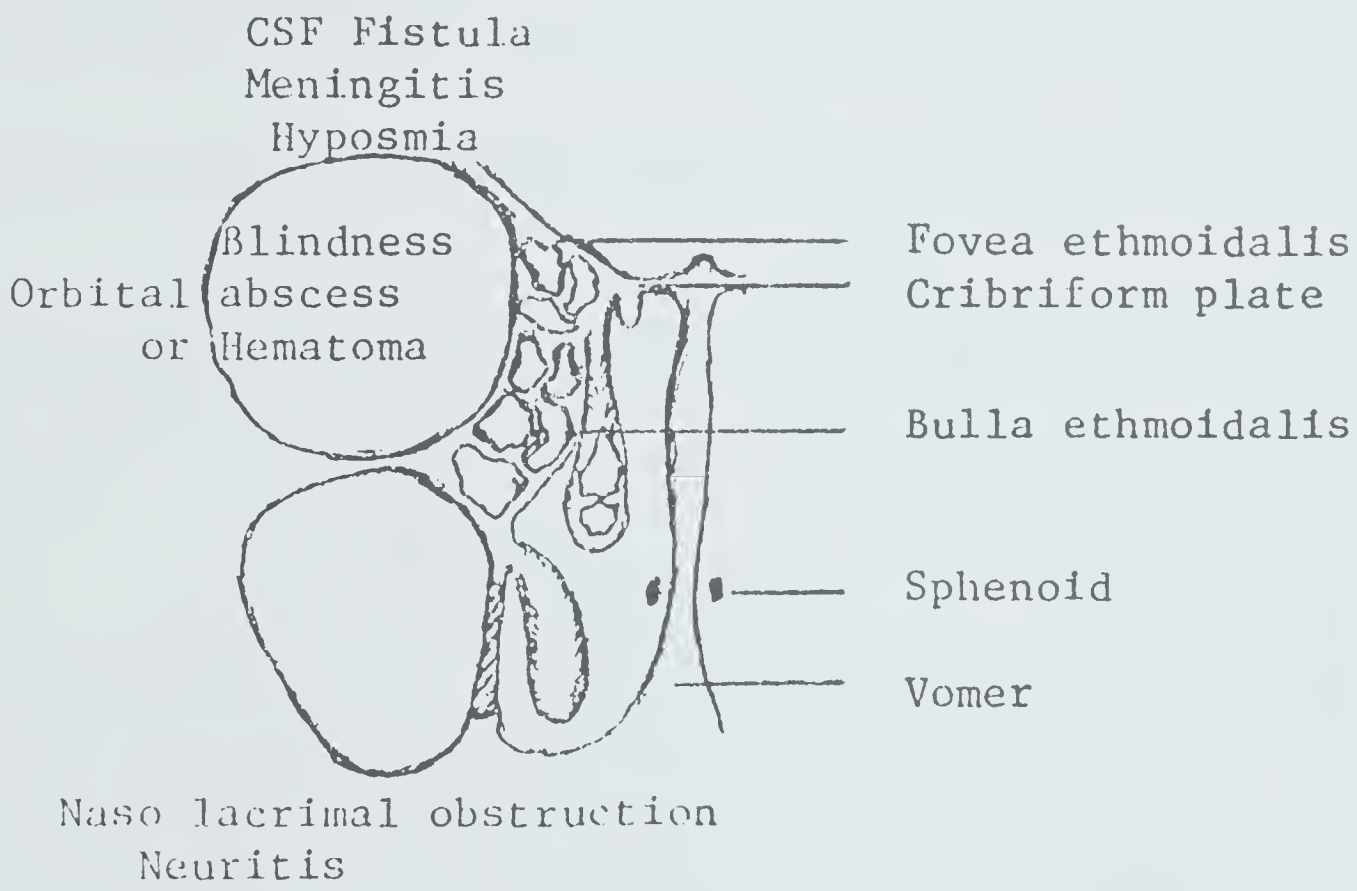
In our experience, the following criteria have been extremely helpful in deciding whether or not surgery

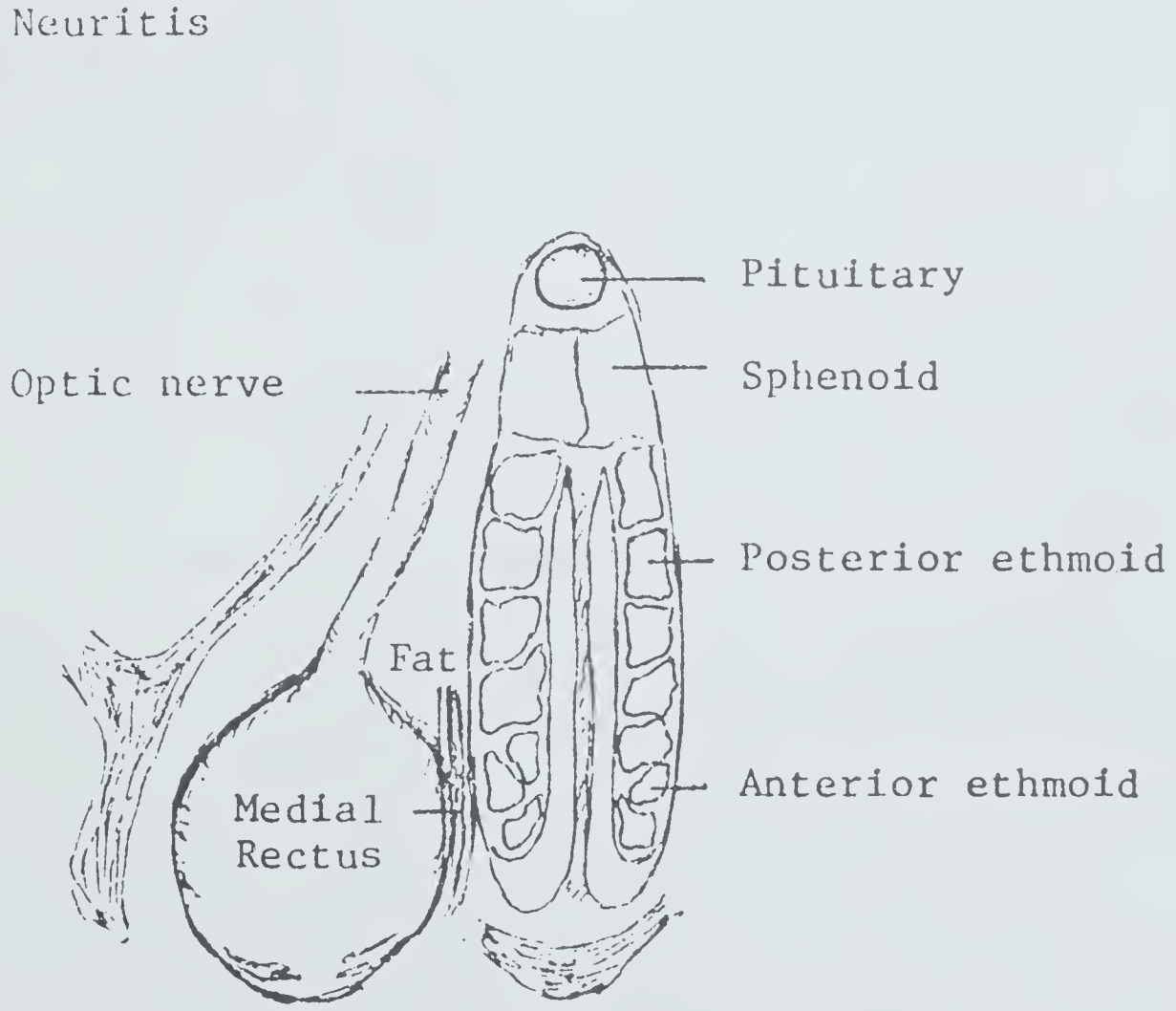
may be beneficial: 1) a constant periorbital pressure headache without associated scotomata and with radiation to the temples worsened by assuming a head-low position, and 2) X-rays showing ethmoid clouding. If after several visits and trials of ergot, antibiotics, or tranquilizers, the patient still remains unresponsive, he may be considered a possible surgical candidate. In patients with this type of headache unresponsive to medical treatment, ethmoidectomy with removal of the lateral half of the middle turbinate has alleviated the headache in at least 70% of the cases. If the headaches recur after surgery and the middle turbinate has not been partially resected, then repeat surgery may be necessary to open the remaining middle turbinate ethmoid cells and, in at least two such cases of ours, the headaches were relieved completely.

Successful ethmoid surgery may also help clear early frontal sinus disease especially where the anterior ethmoids are involved. On three patients we elected to follow the frontal problem and found clearing of the frontal disease after the ethmoids healed. Davison[11] in his excellent article also attests to this point.

Operative Procedure

In a brief review of surgical anatomy it will be seen that the ethmoids number between 4 and 17 pneumatic cells of varing sizes with the anterior cells more numerous and smaller. The anterior cells open into the middle meatus and the posterior into the superior meatus. The middle turbinate divides these two groups and is attached to the roof of the nasal cavity separating the delicate cribriform area medially from the fovea ethmoidalis laterally. The lateral wall of the ethmoid labyrinth is the lamim papyracea which helps the operator avoid the optic nerve, orbital fat, and medial

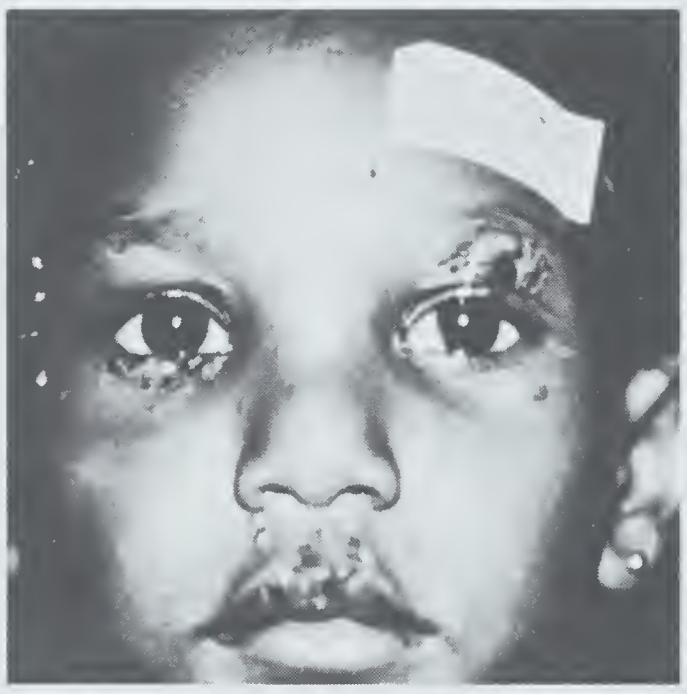




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In the treatment of impetigo–

- **100% cure rate with Tegopen®** (cloxacillin sodium)
- **only a 60% cure rate with penicillin V-K**



As seen on admission



After one week of penicillin V-K therapy



Two weeks after initiation of TEGOPEN therapy

Treatment failure was judged to have occurred when lesions increased in size and/or number during the initial week of treatment with penicillin V-K. *No* treatment failures occurred with Tegopen.

*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

TEGOPEN®
(cloxacillin sodium)
Capsules and Oral Solution

For complete information, consult Official Package Circular. (12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

		Given Tegopen® *(cloxacillin sodium)*	Given *penicillin V-K*
Staphylococcus aureus	(78 patients)	39	39
Returned to clinic at one week		29†	38†
Treatment failure at one week		0	18 (47.4%)
Staphylococcus aureus* and *Streptococcus pyogenes	(9 patients)	4	5
Returned to clinic at one week		4	5
Treatment failure at one week		0	2 (40%)
No initial bacterial growth	(14 patients)	9	5
All 14 healed, regardless of which antibiotic was administered.			
Beta-hemolytic *Streptococcus*	(1 patient)	0	1
TOTALS:	**102 patients**	**52 patients**	**50 patients**

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus,* 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes,* and 1% beta-hemolytic *Streptococcus*.‡
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.
- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

‡The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

TEGOPEN®
(cloxacillin sodium)
–effective therapy for staph infections of the skin and skin structures

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

SUPPLIED:

Capsules—250 mg. in bottles of 100. 500 mg. in bottles of 100.
Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

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rectus muscle. Traversing in the bone are the ethmoidal arteries and nerves. The middle turbinate is part of the ethmoid and frequently contains several ethmoid cells.

The operation can be under local or general anesthesia but the patients usually prefer a general anesthetic. We have been using hypotensive general anesthesia or general anesthesia with 1% Lidocaine with 1: 100,000 epinephrine for infiltration especially into the bulla ethmoidalis and then deep into the ethmoid labyrinth and middle turbinate. The head is elevated about 35-40 degrees. Enhanced visibility can also be obtained by reducing the background ceiling lighting.

In the usual surgical approach, any gross polyps are removed with ethmoid forceps to enchance visibility. Then the inferior turbinoplasty and antrostomy are performed. The septoplasty is accomplished and the middle turbinoplasty or infracture is carried out. Next, the ethmoids are opened and the ethmoid septa area removed.

Foman scissors may be used to dissect the middle turbinate, then the bulla ethmoidalis is removed with ethmoid forceps exposing the labyrinth. A No. 12 Frazier suction can be used to break up the cells by sweeping gently in an anterior-posterior direction. Ethmoid forceps can easily remove the pieces to expose the fovea ethmoidalis. Occasionally an ethmoid septum may be found simulating the fovea, but this becomes obvious as the more anterior and posterior cells are opened. Moving anteriorly with the Kerrison rongeur will open these cells and avoids the nasofrontal duct. No attempt has been made to cannulate the nasofrontal duct as this is rarely necessary and may lead to scarring. Going posteriorly, it is imperative that the dissection be at first directed medially and then carefully laterally to avoid the optic nerve and orbital contents.

Access into the sphenoid sinus, if necessary, can be obtained by gently pushing the No. 12 Frazier suction tube *medially* just above the vomer crest on the sphenoid face. Try in different areas several millimeters apart and usually one will drop into the sphenoid. The sphenoid ostia can sometimes be seen but this has not been a common finding. When removing the face of the sphenoid, always direct the instrument medially and inferiorly.

When using the ethmoid forceps if any bony septum does not dissect out easily, release and re-examine. Preserve the attachment of the middle turbinate to help avoid damage to the cribriform area if another procedure becomes necessary.

Recheck to be sure the ethmoids are wide open with fovea ethmoidalis above, the lamina papyracea laterally, and the cribriform plate all intact. If a cerebrospinal fluid leak is found, remove the mucosa around the fistula and lay on a free turbinate graft with the periosteum against the fistula. Packing with gelfoam is usually sufficient, but it may be backed with iodoform gauze or muscle may be used.

On repeat procedures, remove the polyps then control the bleeding and very carefully lift out fragments until the forea is clearly visible. Bleeding can be controlled with electrical cautery around the edges of the nasal mucosa and with packs soaked in topical adrenalin.

The final sinus packing is one inch wide gelfoam strips which are cut, wet, doubled, and pressed flat in a towel. These are then ready to be inserted with bayonet forceps and should be dipped quickly into the local anesthetic just prior to insertion to prevent them from sticking to the forceps. One or two packs are placed in the ethmoid area and one into the antrostomy to separate the mucosa and to assist in the control of the bleeding. Do not use surgicel in the ethmoid as it has been associated with several cases of blindness presumably from over expansion. The gelfoam packs are usually out when the patient returns for his first office visit about 1 week later. The telfa nasal pack is inserted and left in overnight. Removal the next morning requires only a piece of tissue to grasp it and slip it out. The patient may experience a little bleeding, but this rarely lasts longer than several minutes. The patient can be discharged after removal of the telfa pack.

My patients usually receive antibiotics for about twelve hours before and at least 4 days after surgery. Instruction sheets are given preoperatively explaining that pain is usually moderate and bleeding of about 300cc is to be expected in the first twenty-four hours. Avoidance of nose blowing for 5 days is advised and a small amount of vaseline inserted in the nasal tip helps to soften any crusts. Nasal saline irrigation by sniffing may be started as soon as the nose opens enough. If bleeding resumes after discharge, ice cubes can be added to the saline which is sniffed and held in the nose and nasal spray is advised. Only two transfusions were required for delayed hemorrhage secondary to inferior turbinoplasty on the eighth to tenth day in both.

The No. 12 Frazier suction is also a good indication for nasal patency before packing and if it can be easily passed into the nostrils without impinging on other structures that probably will give an adequate airway later after healing.

Complications:

Major

Retroorbital hematoma-1
Cerebro spinal fluid fistula-3

Minor

Delayed hemorrhage-2
Recurrent headache relieved by repeat surgery-2
Septo-turbinal synecchiae-3
Persistent neuritis of palate and alveolar ridge-1

The minor complications of delayed hemorrhage requiring transfusion have already been mentioned. Two cases had recurrent or persistent headache postopera-

tively and required a second operation for removal of the middle turbinal ethmoid cells with complete relief within about 2 weeks. The nasoturbinal synecchiae were lysed in the office and a small piece of gelfilm was interposed between the edges. One patient required three such treatments before it healed. Neuritis of the palate and alveolar ridge is a fairly frequent complaint after the nasoantral window and usually abates in about 6-8 weeks. B12 may be beneficial to these patients and we teach them to give their own weekly injections. Hyposmia has also been seen occassionally but with B12, Vicon C, and time, it usually becomes less troublesome. In one patient, it was especially worrisome and persistent. Excessive mucopurulent discharge for about 2 weeks is expected, but in the resistant and prolonged cases careful reappraisal, culture, and treatment with appropriate antibiotics should help clear the discharge. Excessive nasal crusting is very unusual after two months. A few patients will complain of a scab that comes from the nasopharynx occassionally in the morning. This crusting definitely has not been as much of a problem as we initially feared it might be.

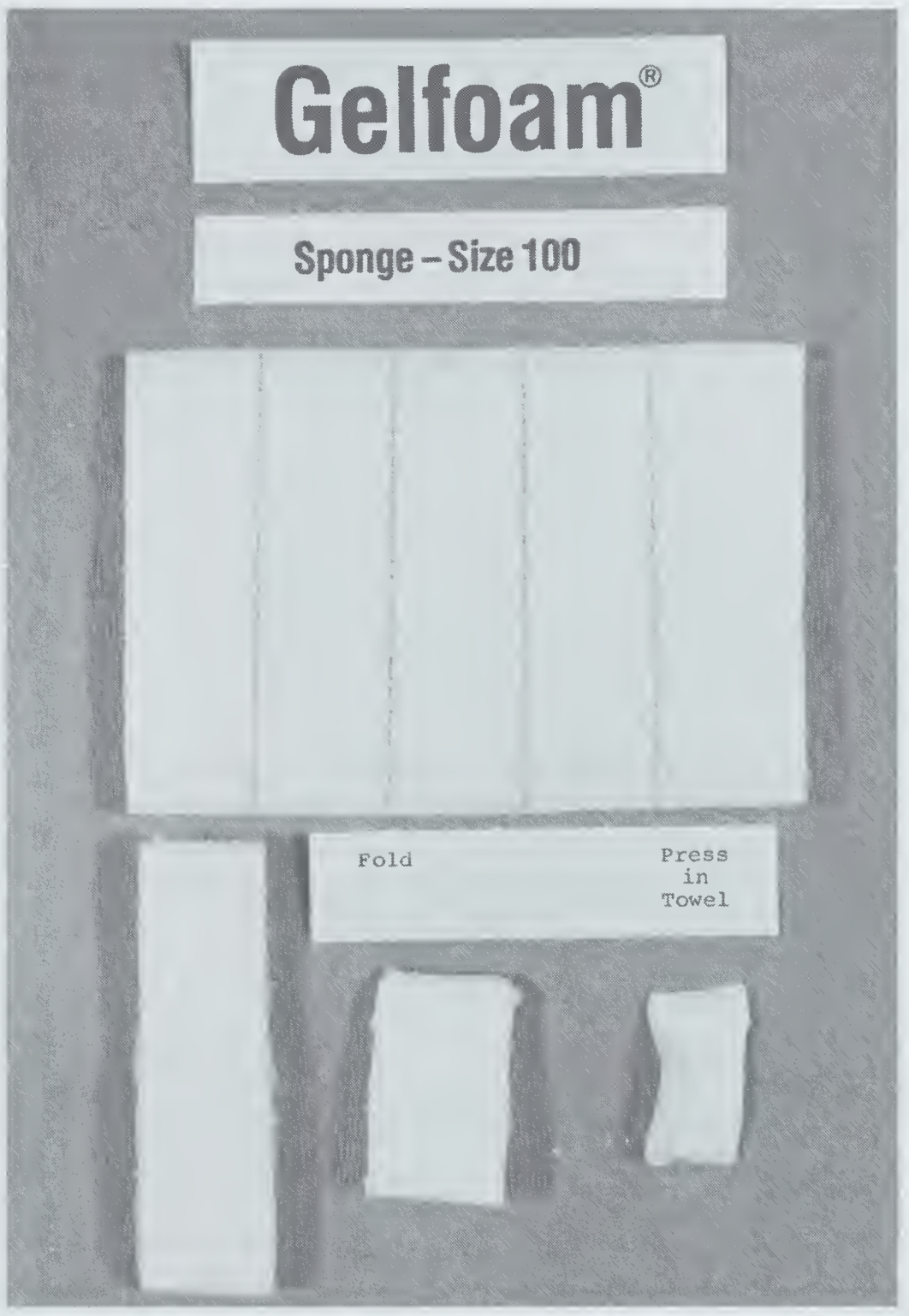
The major complications will be considered in some detail. The first was in July 1974, when a 55 year old male (E.S.) developed a sudden extremely painful retroorbital hemorrhage after a bite was taken of a thickened section of bone in the posterior ethmoid area and the posterior ethmoidal artery was severed. The patient screamed with pain and was finally sedated with a general anesthetic allowing an immediate orbital exploration and decompression. The vision was good after about 8 days when the swelling subsided and we both could breath a sigh of relief.

About 2 weeks later he complained of excessive clear nasal discharge and a CSF fistula was finally localized to the mid-cribriform area on the left with laminography. On comparison, the preoperative X-rays revealed a similar defect so it was presumed to have been a congenital meningocele that must have been removed with all the polyps. The defect was closed from below in August 1974, using an inferior turbinate free graft.

The other two CSF fistula cases were found at the time of surgery and repaired initially with a similar technique using a free turbinate graft. In December 1977, a 55 year old male (D.M.) had a similar nasal and sinus surgical procedure with removal of polyps. A small left meningocele with CSF leak was found and repaired with no delayed leak. The other patient (J.B.), a 31 year old female, had had similar surgery in, June 1977, and a small CSF leak was found after ethmoid surgery was finished. Again a free turbinate graft resulted in a good seal with no delayed complications.

About the time that the second leak was repaired, McCabe[12] described his experience with repairing





cerebrospinal fluid fistula from below and recommended the use of turbinate grafts.

This last short case history is not a complication of surgery, but rather one, I feel, of overlooking the need for surgery. This patient was under the care of another physician and received allergy injections weekly for years. Her son finally persuaded her to seek a second opinion and it took me about four months to get her to consent to surgery. She had had end stage kidney disease and hypertension for years and her eyelid edema was so severe that she would not go out without hiding behind sunglasses. Obviously with this medical condition, surgery was a very grave proposition. In July 1978, she had an extensive nasal and sinus procedure for her severe chronic infection and an upper and lower blepharoplasty was performed also. She withstood the procedure without any problems and has done extremely well since, except for a fractured hip about 1 year after surgery. She is back up and active again and going out without her sunglasses. I wonder if her long standing sinus infection had anything to do with her severe end stage renal disease.

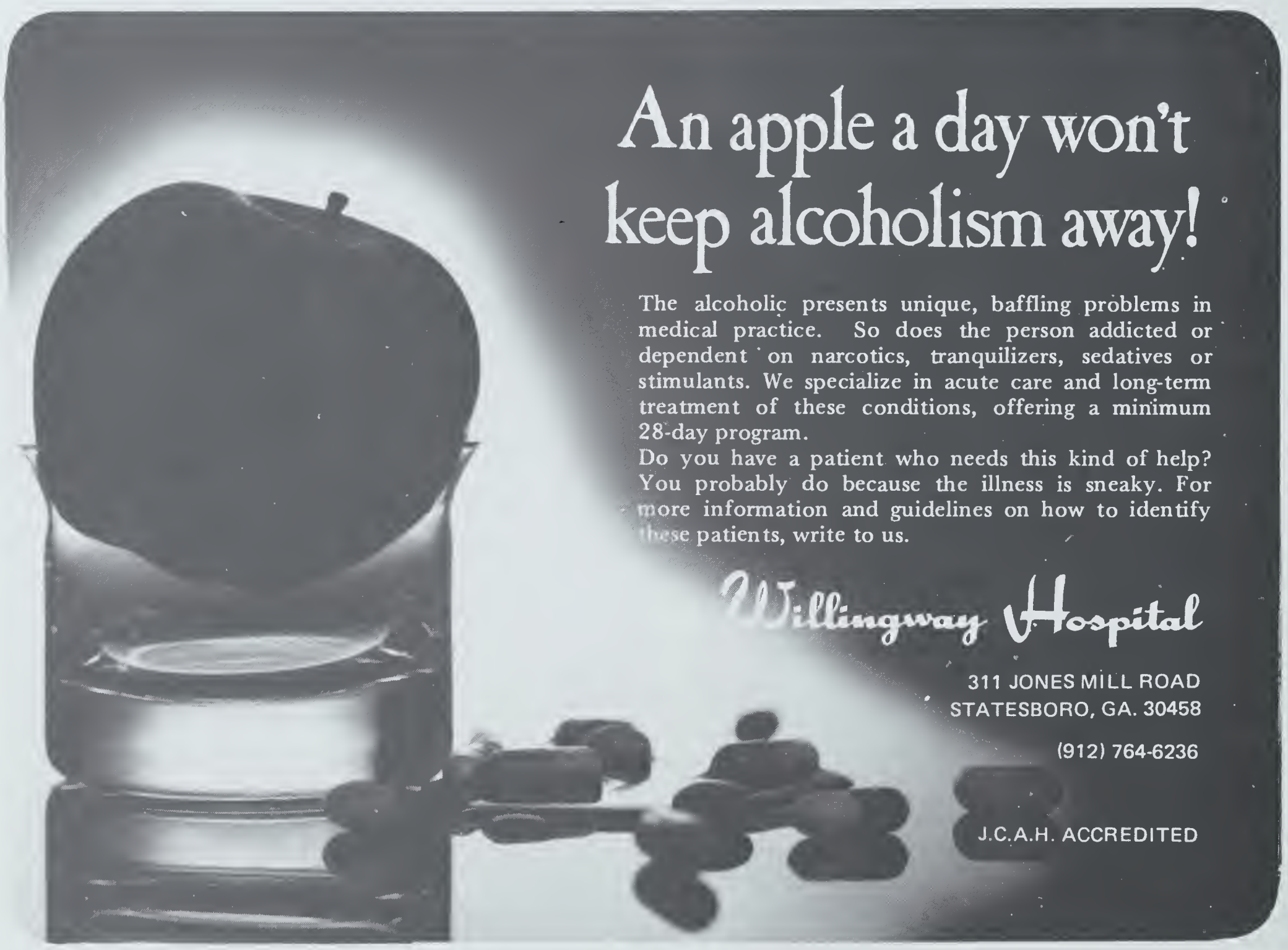
Let us not have such narrow channels of vision that we restrict ourselves to one line of thought, but keep our minds open and seek other possible causes and ways of correcting those difficulties that come our way.

Conclusion

Intranasal ethmoidectomy has been shown to be a relatively safe and effective procedure in the hands of careful, qualified surgeons. Complications do occur, but are not more likely with this approach than with the others. We all need to persevere in our efforts to achieve the best approach and solution to the many medical and surgical problems we encounter and constantly be reminded to review our own work in an effort to improve our patient care.

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Dr. Ira L. Myers, Fence Builder

By William H. McDonald

Ira L. Myers, M. D., state health officer, strongly favors the block grant system of health funds proposed by the Reagan Administration, but he is also wary: few things ever turn out perfectly.

Dr. Myers is now the senior public health officer in the United States. All those years of crusade and compromise, give and take, touch and go, have left him philosophically skeptical about what others may see as flawless panaceas:

"I'm a Baptist," Dr. Myers said recently, the ever-present lapel flower beginning to wilt after a long day in the office, "and we have a saying that whatever works in the Baptist church won't work long."

Dr. Myers seems to apply this generally to what he has experienced in various government efforts, chiefly federal, to do a particular job.

Sensing the public's indifference to and even hostility to the Family Planning Program, the Reagan Administration has proposed its abolition to save money. Dr. Myers, who applauds every effort to economize in public health, commented that this is not cutting the fat but the lean:

"Every teen pregnancy that occurs in this country costs the taxpayer about $18,000.

"We figure we prevented last year, conservatively, 10,000 teenage pregancies in Alabama through the Family Planning Program. That's $180 million.

"About 13,000 got through. That's $234 million we didn't save.

"If the block grant cuts the Family Planning Program, which is one of the proposals in the Congress, and if we don't have the alternative to keep that effort up, we are in deep trouble.

"If we stop our family planning program, currently affecting some 30,000 to 40,000 women, and if only half of those get pregnant the first year, which is fairly likely, we can devastate the welfare program, the Medicaid program, the health program; we can expand the diaper industry and we can change the whole complex of the school system, tax structure and the economic burden of the population growth in this state within a matter of six to 12 months in a manner that would stagger the imagination."

What Dr. Myers is saying here is what he has preached for, lo, these many years: that a jigger of prevention is worth a whole quart of cure.

In fact, Dr. Myers is quick to fault both the Medicaid and Medicare programs as approaching health care from the wrong end—from the standpoint of relieving human suffering as well as cost. For far fewer dollars, he believes, and with far less human illness, prevention could be beefed up, specifically including intensive education programs to teach people how to stay well.

Look at the Facts

In his office recently, he pulled out a well-worn giant chart which showed the incremental progression in the cost of health as the disease state moved beyond primary prevention (health promotion and specific protection), through secondary (early diagnosis and prompt treatment) to the most expensive of all, rehabilitation.

Health is Prosaic

Dr. Myers is obviously weary with the failure of this fundamental message to capture the complete understanding of the public, politicians and even some physicians.

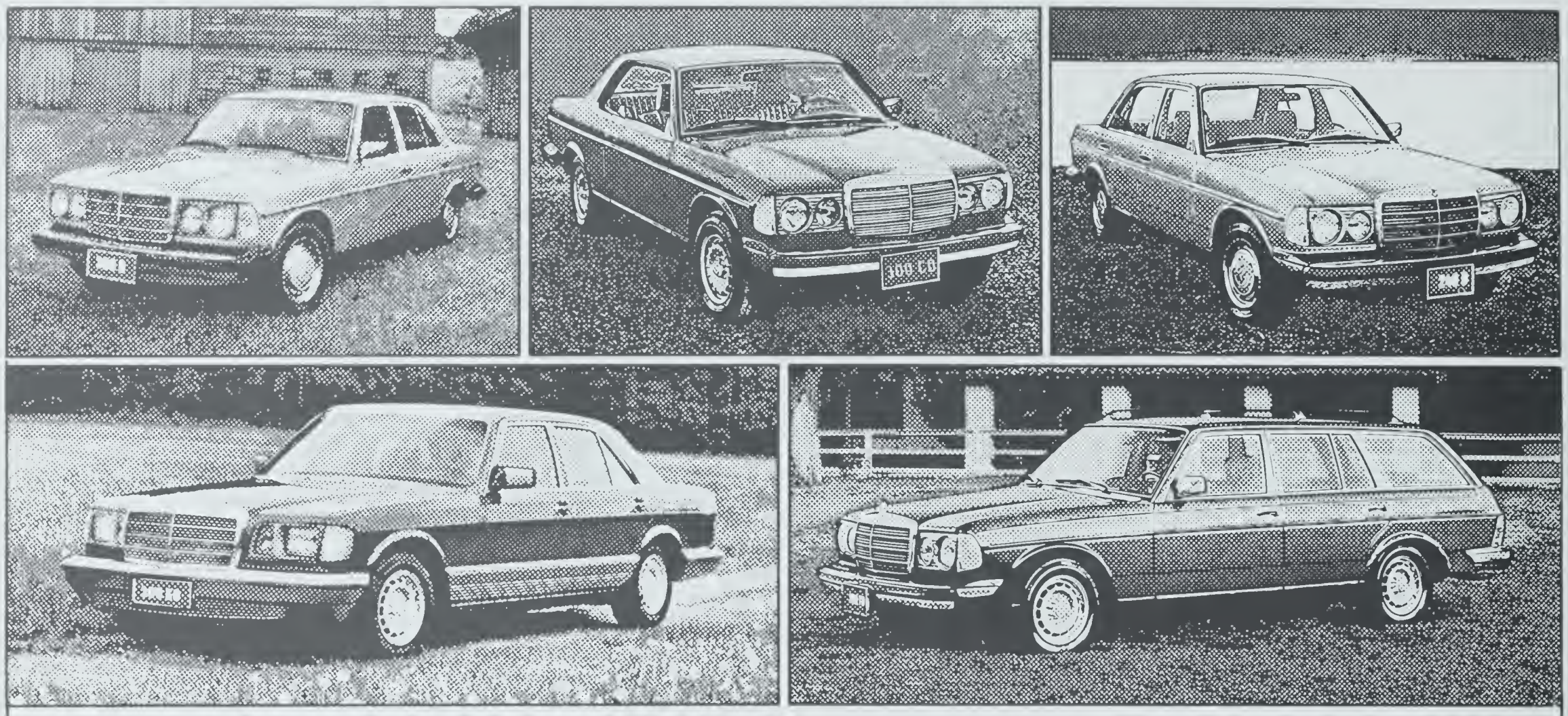
He thinks he has found the explanation: curing illness is more dramatic and thus far more appealing to popular fancy than the prosaic business of primary prevention. After all, illnesses that never occur do not make very good plots on the daytime soaps; neither are they much discussed by the public.

Health is a dull subject to many people. Dr. Myers quotes a poem by Joseph Malins to make his point.

The poem, "A Fence or An Ambulance," is revealing of public attitudes:

'Twas a dangerous cliff, as they freely confessed,
Though to walk near its crest was so pleasant:
But over its terrible edge there had slipped
A duke and full many a peasant.
So the people said something would have to be done,
But their projects did not at all tally;
Some said, "Put a fence around the edge of the cliff,"
Some, "An ambulance down in the valley."

But the cry for the ambulance carried the day,
For it spread through the neighboring city;
A fence may be useful or not, it is true,
But each heart became brimful of pity



Top row, left to right: *300 D Sedan, 300 CD Coupe, 240 D Sedan.* Lower row, left to right: *300 SD Sedan, 300 TD Wagon.*

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For those who slipped over that dangerous cliff;
And the dwellers in highway and alley
Gave pounds or gave pence, no to put up a fence,
But an ambulance down in the valley.

Then an old sage remarked: "It's a marvel to me
That people give far more attention
To repairing results than to stopping the cause,
When they'd much better aim at prevention.
Let us stop at its source all this mischief," cried he,
"Come, neighbors and friends, let us rally;
if the cliff we will fence we might almost dispense
With the ambulance down in the valley."

Better guide well the young than reclaim them when old,
For the voice of true wisdom is calling,
"To rescue the fallen is good, but 'tis best
To prevent other people from falling."
Better close up the source of temptation and crime
Than deliver from dungeon or galley;
Better put a strong fence round the top of the cliff
Than an ambulance down in the valley.

Joseph Malins

"I'm a fence builder," Dr. Myers says. "If we don't build fences we are not going to solve the problem. Even the Russians have decided that."

In the case of Family Planning, Dr. Myers sees that as a relatively cheap fence; the cost of pregnancy as the expensive ambulance.

"We can go back to the time when major plagues controlled the population or we can have family planning," he says.

The latest word from Washington, Dr. Myers says, is that the block grants, which substitute for 26 categorical grants, will fortunately include a separate grant for immunization (the fence). Mental health is still in one of the blocks but if it turns out to be in a preventive block, he said, it could swallow all there is. Medicaid will not be included in the blocks.

"Although I strongly favor block grants," he says, "I do worry about them. They have told us they will take 25% off the top. If you cut the funds that much, then put it all in one big tub and let the state decide who administers it, you could run into a situation whereby most of it goes to a pet program of a Governor."

This has happened in Washington programs over the years, Dr. Myers says, accounting for the disease-of-the-month propensity of Congress. Disproportionate and thus wasteful funds have been thrown at various diseases, under categorical grants, depending on what the public and Congress decides should be national priorities—evidence of ambulance mentality, Dr. Myers says.

Many people simply don't get excited about public health, about prevention, until something dramatic happens. An outbreak of rabies, such as the recent one in Southeast Alabama, rivets public attention to the necessity of fences Dr. Myers says, "because people get upset about mad dogs."

When the acute phase of the problem is over, they forget about prevention, since other threats to public health may not concern them.

The Invisible Monument

Nothing supports his belief in fences more than the absence of the Crippled Children's Hospital in Birmingham, which was torn down after the conquest of polio. Where it once stood there are now centers directed to cancer and diabetes, diseases that haven't been solved. In polio, as in so many other communicable diseases already licked, fences have made the ambulances unneccessary.

Tuberculosis is another example of good fence building ridding the state of expensive ambulances, the sanitaria of old. And there are many others.

Dr. Myers is guardedly optimistic about block grants. Philosophically, he is all for this approach, as opposed to categorical grants, which imposed the dubious wisdom of Washington on every region regardless of widely varying health problems.

Dr. Myers confirmed that he is the last of a vanishing breed of career health officers. He is now the senior health officer by many years in the country. The average public life of a health commissioner nationally is about 2.5 years, "before they get chewed up by the politicians or beaten down by the bureacrats."

"I have spent a lifetime training for this position," Dr. Myers says reflectively. "I spent seven years in public health seeing what the federal government was like before I came here. Seven more years as assistant to the state health officer gave me a fair background.

"But my hide is wearing thin in places too, because I've about had a bellyful too. You beat your brains against a wall, you see so many needs, so many frustrations. . .

"One major problem is I can't get away for a period of time. For more than 20 years, almost 25, I have been unable to get away, except for one brief period, when I spent a couple of weeks in Europe."

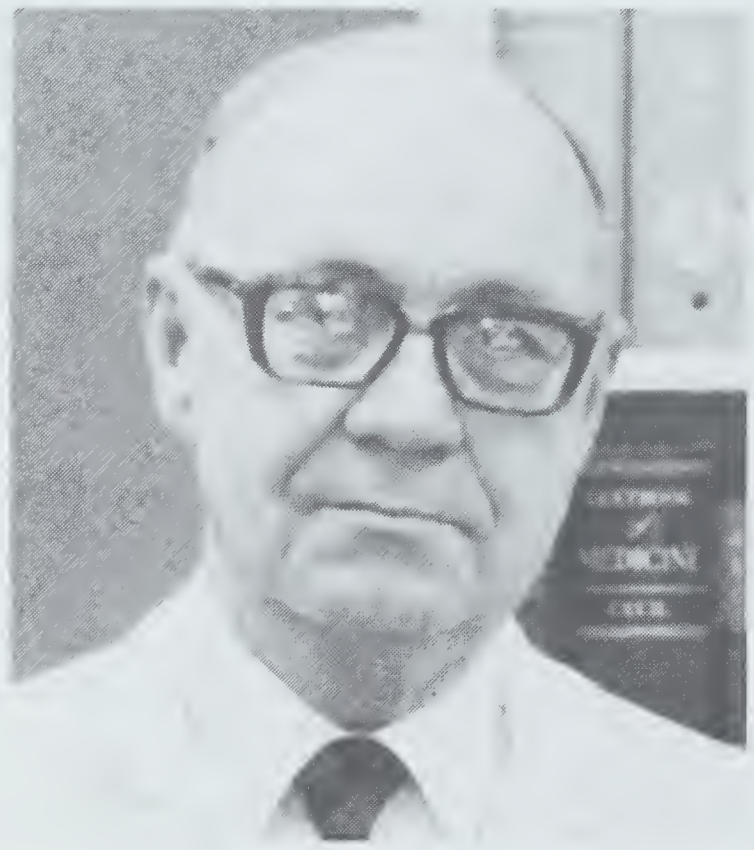
The phone rings incessantly in Dr. Myers' office, demanding his expertise on crises large and small. He provides that with an economy of words mindful of the staccato talk of air traffic control: Do this, do that, don't bother with that. No nonsense.

But the weary look on Dr. Myers' face between calls suggests that if his own physician were there at the end of a long day he would tell him to cut out for a few weeks—perhaps to visit his physician daughter in Yemen.

But then Ira L. Myers, M. D., doesn't push around very easily. He is the pusher, not the pushee.

"THE PHYSICIAN IS A DECISION MAKER, AND ALMOST EVERY DECISION HE MAKES COSTS OR SAVES MONEY."

—Dr. William Felts, Past President, American Society of Internal Medicine



More and more physicians today are beginning to realize the extent of the economic influence they have, and are finding ways of holding costs down.

A number of studies show that the more physicians *know* about costs, the more they try to *reduce* them.* And this reduction can be done without reducing the quality of care to the patient.

How are they doing this? As a start they have become thoroughly familiar with the costs they incur on behalf of their patients. They know how much an X-ray costs, how much their hospital charges for routine lab tests. They're requesting copies of patients' hospital bills. And asking their hospitals to print the charges for diagnostic tests right on the order sheet.

What else are physicians doing? Minimizing their patients' hospital stays, whenever possible. Reevaluating routine admissions procedures. Questioning the real need of the diagnostic tests they order for their patients. Avoiding duplicate testing. Trying to discourage their patients' demands for unnecessary medication, treatment or hospitalization. Compiling daily logs of their medical decisions and what they cost. And more.

More physicians today realize what a tough problem we're all faced with. They know this is a challenge for medicine. And that physicians are in the best position to deal with and solve the problem.

**PATIENT CARE Magazine—Outlook 1977, "Face-Off: Cost Containment vs. Chaos," January 1, 1977.*

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Life Saver—
Helicopters in the EMS System

By Ronald W. Berry, M. D.

A 14-year-old boy hit by a car while riding his bicycle experienced cardiac arrest and died from Hypovolemic Shock two blocks from a major medical trauma center two hours after his injury waiting for a train to pass.

A 55-year-old man had both legs caught in a rock crusher requiring several hours to extricate him using acetylene torches. Finally arriving at the hospital, he has potential loss of both legs from third degree burns, crush injuries, and likely subsequent infection.

A 65-year-old male presents to a Birmingham Hospital Emergency Department in cardiac arrest, obviously having aspirated just prior to his arrival in the Emergency Department, and was unable to be resuscitated. He had presented with chest pains and heart block, presumable secondary to an acute MI at a small hospital one hour from Birmingham and immediately was referred to a Level I cardiac facility by local ambulance company with Level 11 EMT's attending him.

The patients above all experienced unfortunate outcomes which might have been improved by the use of helicopters in delivery of emergency care. Hypovolemic Shock is obviously not a cause for demise when due to simple ruptured spleens when rapidly taken to an operating room. Two hours of excruciating pain and suffering and time for potential sepsis could have been avoided by a physician taken to the scene with the ability to administer Morphine, loading doses of antibiotics, etc, at the scene. A patient under the high risk of cardiac arrest could be managed by intensive level care in transport with the availabilities of temporary pacemaker insertion prior to his transport if necessary.

The medical use of helicopters is now a reality in Alabama. Helicopters proved their value in military use during the Korean War and were fully utilized during the Vietnam conflict. The rapid response to and evacuation of wounded soldiers to early definitive treatment in field hospitals dramatically reduced the mortality of wounded soldiers. During World War II, antibiotics and whole blood were available but wounded soldiers were transported by ground ambulance with average speeds of five to eight miles per hour.

During the Vietnam War the speed of the helicopter dramatically decreased the time at risk out of the hospital environment. Thus mortality decreased from 4.5 per 100 wounded in World War II to less than 1 per 100 in the Vietnam War. Statistically in the early 1970's, a wounded Vietnam soldier had a better chance for survival than a victim involved in an auto accident in this country.

The civilian use of helicopters was first done through various federally funded pilot programs in the early 1970's and through the establishment of the M.A.S.T. program. These pilot programs met with varying degrees of success and much was learned about the proper structuring of such services to maximize their benefits and minimize their costs.

Measuring Use

With increasing implementation of EMS systems approach to emergency care, including instituting of categorization and regionalization of facilities (i. e., establishment of trauma centers, burn centers, etc.) helicopters will increasingly be brought into use in the civilian sector. Helicopters can provide a cost effective way of transporting patients rapidly under an intensive

care level of care during transport, when patients require treatment in a specialty center. If victims are accessable to cat scanners, trauma center level operating room care, cardiac bypass machines, etc., within the critical period of time by using helicopters, the need for duplicating services and facilities is reduced. Also, when centrally dispatched, the helicopter provides an efficient cost-effecting way to take advanced level medical equipment, including physicians, to remote areas to allow treatment to begin at the scene. It has been shown that one helicopter can easily cover an area equivalent to 10 to 12 ground based ACLS units. One ground based ACLS unit staffed 24 hours a day can cost between 150 and 175 thousand dollars to implement and maintain for one year—much more than one helicopter program.

Carraway Methodist Medical Center initiated Life Saver service on January 2, 1981. This program consists of a Bell Jet Long Ranger Helicopter, fully equipped to serve as a portable emergency facility, with an emergency physician and flight nurse available for each flight. When not flying, the physician and nurse work in the CMMC emergency Department. The helicopter medically can carry one or two patients and has cardiac monitoring, defibrillating capabilities, respirator, digital blood pressure monitoring, full range of emergency drugs and equipment, including chest tubes, cricothyroidotomy kits, etc. A radio communication center staffed by trained paramedics monitors on a 24 hour a day basis the requests for Life Saver service. When Life Saver scrambles, a physician, nurse, and pilot are airborne within 3 to 5 minutes, traveling to the scene of an accident or to implement interhospital transfer of critically ill/injured patients at 150 miles per hour. Since helicopters travel in a straight line, and have no limitations from traffic congestions, red lights, trains, etc., their response time is approximately 1/5th that of ground based vehicles. Over most radiuses the helicopter can complete a round trip quicker than conventional ground transportation one way.

1 1/2-Year Study

Approximately one and one half years of intensive study was done by Carraway Methodist Medical Center prior to implementation of this service. Successful programs around the country were visited and the best parts of each program were combined in creating the Life Saver program. Of the approximately 38 helicopter ambulance programs now existing in the United States, only a few fly physicians as members of the flight crew. The speed of transport by helicopters alone has been shown to have definite advantages. However, when the physician is added to the team, additional definitive care can begin on arrival of the helicopter rather than on its return. This capability is obviously critical in certain situations when surgical airways might be required, or other acute medical emergencies, that might present resulting in patient demise, prior to arrival at hospital facility. The ability to make rapid assessment at the scene, and during the return flight, also allow the Life Saver Flight Physicians to be in radio contact with the receiving hospital and physician allowing the operating room to be prepared, neurosurgical specialists to be called, etc., again minimizing delay in patients receiving definitive care.

The Life Saver helicopter is equipped with radio equipment to allow communications with necessary persons including Highway Patrol and local police, paramedics on the ground, HEAR radios in the emergency departments around the state, and through a phone patch system through Carraway Communication Center, any private phone line that might be needed.

First in Alabama

Life Saver is the first helicopter program of its type in Alabama, and is designed to be a service available to all persons in the state. A 150 mile radius describes a circle from Birmingham with approximately one hour response time. This area would constitute the practical range for such a service. However, obviously areas outside this circle could be served in special circumstances. The cruising speed of 150 miles per hour allows one hour response time to this distance, and also the fuel capacity of the helicopter allows a 150 mile round trip with the required 30 minute reserve fuel to allow a non-stop round trip. Life Saver is available within 3 to 5 minutes of calls from any authorized persons, such as Red Cross, Civil Defense workers, Law Enforcement personnel, Industrial Safety Officers, EMT's, hospital personnel, and any physician in the state. Patients may be picked up at the scene of an accident or aided in interhospital transfer from any hospital to any receiving hospital.

For interhospital transfers, the requesting hospital physician, should make arrangement at the receiving hospital and contact the receiving physician to be sure that the transfer is acceptable. The Life Saver Flight Physician will assume responsibility for patient management upon his arrival, and maintain this responsibility until the patient is safely delivered to the receiving physician.

The fee for Life Saver is $75.00 lift off fee plus $2.00 a mile round trip. There would also be charges for supplies, medications, and physician procedures, just as if the patient were in the Carraway Methodist Medical Center Emergency Department. Third party carriers usually reimburse this program at least on a level equivalent to ground transportation and routine Emergency Department profiles.

Life Saver may be requested by calling the local number, 254-6611, the toll-free number, 1-800-292-8133, or by HEAR radio frequency 155-340, or CMMC Frequency 155-355.

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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness *(e.g.,* operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

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Review of Vitamin C:
Chemistry, Properties and Multiple Functions

by
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Abstract

This is a review of the properties and multiple functions of Vitamin C and includes therapeutic uses of the vitamin in common colds, whooping cough, herpes virus, encephalitis, measles, chicken pox, mononucleosis, hepatitis, pressure sores, back pain, cervical carcinoma of the uterus, cancer, ocular alkali burns, barbiturate poisoning, lead poisoning, stress, ankylosing spondylitis, insect bite and snake bite.

Review of Vitamin C: Chemistry, Properties and Multiple Functions

Scurvy was probably the first disease to be definitely associated with a food deficiency in man. Scurvy was widespread in Europe as early as the fifteenth century and was probably observed long before that time. The disease occurred regularly among sailors on long voyages when fresh foods were not available. When Vasco de Gama sailed around the Cape of Good Hope, he lost more than half of his crew to scurvy. In 1535, Jacques Carter's men were stricken with scurvy during their exploration in Canada and several of the men died. However, a friendly Indian saved the remainder of the men by preparing an extract of the leaves of an evergreen tree. The etiological relationship to the absence of fresh fruits and vegetables was noted when it was discovered that a decoction of spruce needles had curative qualities for scurvy.

In 1749, Lind, a British naval surgeon treated several of the scorbutis sailors on his ship with fruit juices. He noted a dramatic recovery in those who ate lemons and oranges and as a result recommended lemon juice as a standard part of the diet. It was about fifty years before his advice was heeded in 1795 when the British Government had limes put into the ration of the British sailors. The new regulation British vessels to carry a supply of lemons or limes for the sailors gave rise to the name Limehouse for the shipping district in London, the wharf area and thus the name "limey" or "Lime Juicer" for the British Sailor. [1,2,3,4,5,6,7]

About 130 years ago land scurvy swept through the mining camps of California and the disease took an estimated 10,000 lives. No doubt some of those individuals who had survived the overland trip by covered wagon in 1849 were fit subjects for scurvy since their diet had been almost totally lacking in citrus fruits and fresh vegetables.

The dietary origin of scurvy was confirmed experimentally in 1907 by Holst and Frolich in guinea pigs on a diet of bran and oats.[8] Their findings paved the way for intensive research on protective substances in foods. Hopkins[9] named the indispensable substances "Accessary Food Factors" in 1912 and Casimer Funk termed the factors "Vitamines".[10,11,12] The letter "e" was dropped from the name and the name "Vitamin" had reference to the fact that vitamins are essential for life in certain vertebrates (man, apes, guinea pigs, trout and coho salmon) and that some of the vitamins, but not all, contain nitrogen. Holst and Frolich's experiments were confirmed by Cohen and Mendel in 1918.[16]

In 1927 Szent-Gyorgyi made a statement about a reducing substance that he had extracted from the adrenal glands and cabbage. He did not isolate the substance in crystaline form at that time. He designated the substance as C_{12} which was the protocol number and had no reference to Vitamin C. Hexuronic Acid was identified by Szent-Gyorgyi in 1928 as a substance associated with Vitamin C but not Vitamin C.[18,20,21,22,23]

Bone Formation

Vitamin C is essential for normal bone development. In scurvy where the Vitamin C content of tissues is quite low, there are lesions of the epiphyseal junction of growing bones. Also, in classical scurvy, bone formation practically stops and resorption begins so that the result is atrophy and bone fragility.[3,31]

Chemical Tests

Taniguti et al devised a procedure in 1937 to determine the total Vitamin C in urine by means of a titration with an idophenol.[32] Mindlin and Butler determined the Ascorbic Acid in plasma by both a macromethod and a micromethod.[33]

Bessey et al determined the Ascorbic Acid in small amounts of whole white blood cells and platelets in 1947.[34] In 1956, Klenner reported a new office procedure for the determination of plasma levels for Vitamin C.[35] Cheraskin et al performed intradermal tests for Ascorbic Acid in 1957.[36] Ringsdorf and Cheraskin re-

ported a rapid and simple lingual test for Vitamin C in 1962. They employed 2:6 dichlorophenol-indophenol. A small drop of a solution of the dye is deposited by means of a 25 gauge needle on a dried dorsum of the protruded tongue and a stop watch is used to determine the time required for decolorization of the dye. Plasma Vitamin C levels were determined and they observed that the highest plasma Vitamin C values were associated with the shortest lingual test times.[37] Cheraskin and Ringsdorf reported a lingual Vitamin C test relating to the plasma Ascorbic Acid level.[38]

Common Colds

Several investigators have reported attempts to prevent or cure common colds by the administration of Vitamin C and to see whether the vitamin would offer resistance to infection. Cowan et al reported in the December 1942 issue of the J.A.M.A. that there was no indication that either large doses of Vitamin C alone or large doses of vitamins (A; B_1; B_2; C; D; and nicotinic acid) have any important effect on the number of severity of infections of the upper respiratory tract.[39] Glazebrook and Thompson used 200 mgm of Vitamin C per day in a large institution and found that the incidence of the common cold and tonsilitis were the same in those receiving the vitamin and the controls.[40] Franz et al ran a pilot study in 1956 with 22 men and they reported that 65 mgm of Vitamin C given three times per day did not prevent common colds but seemed to show a more rapid improvement.[41] Ritzel made a study in 1961 of children in a winter vacation camp in Switzerland where he gave one gram of Vitamin C daily to 139 children and placeboes to 140 children for 5 to 7 weeks. He stated that the children who received the Vitamin C had less infections than the controls.[42]

In 1970, Pauling published his book, "Vitamin C And The Common Cold".[43] In 1971, he reported the significance of the evidence about Ascorbic Acid and the common cold.[44] Then several groups of investigators in the United States, as well as in several Foreign Countries, set about to prove that Vitamin C could prevent and cure common colds. One of the Canadian groups confirmed Pauling's findings but when they repeated their study, they were not able to confirm their own observation.[45] Coulehan et al found no evidence of prophylactic or therapeutic potential for one gram supplements of Vitamin C per day in Navajo school children.[46,47,48] Charleston and Clegg used one gram of Vitamin C per day for 15 weeks and reported that the incidence of colds was reduced about 49 percent.[49] Karlowski et al used employees of the National Institutes of Health as volunteers who either took one gram of Vitamin C or a lactose placebo in capsules three times per day for nine months and observed that Vitamin C had at best only a minor influence on the duration and severity of common colds.[50] Wilson et al in Ireland observed that children in boarding schools who were treated with 50 mgm of Vitamin C supplement per day had fewer catarrhal symptoms than those taking placeboes. In another series involving 688 adult women living in two towns who either received one gram of Vitamin C or a placebo per day for 100 days, the authors reported that the two groups had experienced a similar incidence of colds.[51] Dykes and Meier stated in 1975 that they believe that there is little convincing evidence that daily doses of Vitamin C have any affect on the frequency or severity of the common cold.[52]

Harde and Philippe injected twice the lethal dose of diphtheria toxin mixed with 10 to 20 mgm of Vitamin C into guinea pigs. They observed no toxic symptoms and only a few developed immunity.[53]

Cordosa observed that when guinea pigs were injected with lethal, or near lethal doses of diphtheria toxin, there was an almost complete disappearance of Vitamin C from the adrenal glands within 48 to 96 hours.[54] Torrance confirmed Cordosa's findings.[55]

Jungeblut and Zwemer reported that Vitamin C inactivated diphtheria toxin and protected guinea pigs against diphtheria intoxication.[56]

Schwarz and Cislaghi reported that Vitamin C neutralized the effect of diphtheria toxin.[57]

Storck observed that when low doses of diphtheria toxin (m.l.d.) were injected into guinea pigs and followed by daily doses of 30 mgm of Vitamin C that death of the animals was usually delayed one to two days.[58]

Giroud et al reported that Vitamin C is necessary for the secretion of the cortical hormone of the adrenal cortex.[59]

Otani used Vitamin C therapy in 81 patients with whooping cough in 1936. He used 50 to 200 mgm of Vitamin C per day depending upon the age of the children and the severity of the disease. Thirty-four were cured, thirty-two were improved and fifteen did not improve with the treatment. Otani stated that Vitamin C seemed to be specific for B. Pertussis.[60,61]

In 1937, Ormerod and Unkauf treated patients with whooping cough with doses of 150 to 500 mgm of Vitamin C per day and the coughing disappeared in less than two weeks.[62] Ormerod et al reported on further treatment of whooping cough with Vitamin C and they confirmed their earlier results.[63]

Mega Doses of Vitamin C

Klenner stated that he had taken 10 to 20 grams of Vitamin C per day for many years and that his blood sodium was normal and his urine remained at, or just above, Ph 6.[64]

Hines had a series of 99 patients who took doses of Vitamin C (1 to 15 grams per day). He noted that two elderly patients had ingested 15 grams of Vitamin C per day for approximately eighteen years. Both of them had reduced levels of Vitamin B_{12} in their sera but neither had anemia. However both of them had morphologic evidence if Vitamin B_{12} deficiency as evidenced by hypersegmentation of the neutrophils in the peripheral blood smears.[65]

Herbert et al reported that continued large daily doses of Vitamin C reduced the level of Vitamin B_{12} in the blood and that if it gets too low, pernicious anemia will result.[66]

Klenner reported that the plasma levels of Vitamin C in postoperative patients were down to one-half the normal values within twelve hours.[64] Irvin et al observed that there was a 42% reduction of the Vitamin C levels in circulating leukocytes on the third postoperative day. From their findings, they feel that the study creates an argument for the use of vitamin supplements in surgical patients in order to assure that the leukocytes have a normal percent of the vitamin.[67]

Pressure Sores

Taylor et al reported in 1974 that Vitamin C plays an important role in the treatment of pressure sores, (ulcers) in surgical patients. Vitamin C is essential for the synthesis and maintenance of collagen in healing tissues. After one month of treatment with 500 mgm of Vitamin C per day, there was a reduction of 84% of the surface area of the ulcers. Vitamin C may be helpful in preventing pressure sores (ulcers) in paraplegics[68,69] and others who spend a large percent of the time lying in bed.

Ocular Alkali Burns

Levinson et al reported that ascorbic acid prevents corneal ulceration and perforation following experimental alkali burns.[70] Pfister et al reported that topical ascorbate decreased the incidence of corneal ulceration after experimental ocular alkali burns in rabbits. The two most common causes of caustic burns of the eye are industrial accidents and domestic arguments in which a lye-based cleaner is thrown into the face of persons. The use of Vitamin C as a possible treatment for caustic burns of the cornea is being tested by the National Eye Institute at thirteen locations. It was estimated that at least 100 burned patients will receive the treatment. The therapy may hasten healing of the cornea so that surgical efforts to restore vision can start sooner.[71,72,73]

Back Pain

Greenwood of Houston, Texas, had been troubled with back-pain for about 10 years. In 1957 he began to take Vitamin C (250 mgs) four times per day. Four months later, the back-pain disappeared. Since that time he has treated more than 500 patients with minor lumbar or spine strains. At present he prescribes doses of 500 mg of Vitamin C per day for all patients with back-pain.[74]

Arthritis

Hall et al observed in 1939 that seventy-five percent of 56 cases of rheumatoid arthritis had a subnormal Vitamin C level in the blood.[75] Farmer confirmed Hall's observation that the level of Vitamin C in the blood was low in cases with arthritis.[76] Muether treated chronic arthritis patients with Vitamin C and Vitamin B_1 and he reported that some of them were helped with that therapy.[77] Blair and Holley reported that the use of Vitamin C in the treatment of rheumatoid arthritis had been disappointing but that the patient may be helped if he is suffering from a general nutritional deficiency.[78]

Carmichael observed that he had had pain in fingers of both hands during 1968 and that the pain was especially excruciating when he made a fist. At that time some of the joints were so affected that he could not bend them. He had been taking a vitamin pill, per day, for several years but in 1968 he began taking 250 mgm of Vitamin C along with the vitamin pill per day, in the morning, and 250 mgm of Vitamin C, in the evening. He reported his observations to the Alabama Academy Of Science in 1974. Since that date he continued to take the vitamin pill each day and has continued to take his one gram of Vitamin C twice each day. In addition, his diet has included foods rich in Vitamin C (citrus fruits, leafy vegetables, etc.). He reports that he has no pain in any of his fingers but that the joints remain stiff.[79]

Bingham, Medical Director, National Arthritis Medical Clinic, Desert Hot Springs, California, stated that anything that you can recommend to the patient to help their general health is valuable. He suggested that a nutritious diet, with supplemental vitamins and trace elements, is very important in arthritic patient care.[80]

Cervical Carcinoma of the Uterus

Cheraskin et al made a preliminary radiation study with 54 patients with cervical carcinoma of the uterus in 1968. The patients were divided into two equal groups with 27 serving as controls. Twenty-seven patients were given a nutritional regimen of supplements of multivitamin-mineral and a Vitamin C watersoluble bioflavonoid preparation for one week, prior to the initiation of radiation therapy, and it was continued for three weeks following the termination of treatment. The mean dose was 5952 r and was administered over a period of 37 + 7 days. Vaginal smears were evaluated to determine radiation response. The patients with the vitamin supplements had a much higher radiation response than the controls who had had equal radiation therapy.[81]

Klenner stated in 1974 that women with a family history of cervical cancer should douche with a 3% solution of Vitamin C at the first report of cervical erosion. Then the physician should tampon with a 3% solution of the vitamin. Twenty grams of Vitamin C per day, along with the local application, could erase this form of malignancy.[82]

Cancer

Cameron and Pauling made a study of the survival times of 100 terminal cancer patients who were given supplemental Vitamin C (10 gm per day) as part of their routine management and 1,000 matched controls (similar patients who received the same treatment except for the Vitamin C). The vitamin treated patients had a mean survival time of about 300 days greater than that of the controls. The mean survival time of 22 of the vitamin treated patients was 2.4 years after reaching the apparent terminal stage. Eight of the vitamin treated patients were still alive after 3.5 years.[83,84]

Nitrosamines

Mirvish et al think that ascorbate may have a possible means of blocking the formation of carcinogenic nitroso compounds.[85] Archer et al think that the reaction of nitrite with Vitamin C is involved in the production of nitrosamine.[86] Fine et al studied the formation in vivo of volatile n-nitrosamines in man after ingestion of cooked bacon and spinach.[87] Varghese et al observed non-volatile n-nitroso compounds in human feces.[88] Tannenbaum et al think that nitrite and nitrate are formed by endogenous synthesis in the human intestine.[89] Want et al reported that volatile nitrosamines are present in normal human feces.[90] Bruce et al think that there is a mutagen in the feces of normal humans and that nitrosamines are a major class of chemical carcinogens which lead to a wide variety of tumors in animals. Their experiments lead them to the hypothesis that a portion of the excess of cancer is due to dietary deficiencies that lead to endogenous production of nitroso compounds.[91] Vitamin C reduces the level of nitrosamines in the feces. Since nitrites are used as meat preservatives and since nitrites may be a hazard to the health of the consumer, the U.S.D.A. recently reported that 17 of the 96 U.S. packing plants had excessive preservatives in their meats. Since Vitamin C has been shown to reduce the nitrosamines in human feces, it seems logical to add the vitamin to meats along with preservatives such as nitrites.

Stress

Selye reported that adrenal exhaustion could be caused by emotional tension.[92] Cheraskin et al reported that the lack of Vitamin C or a low consumption of the vitamin, along with an inadequate diet, can cause emotional stress. When an individual's plasma level of Vitamin C drops, then emotional stress results. When one is under emotional stress, it affects his body chemistry. When the body chemistry is greatly perverted because of the diet, then there is greater stress. Vitamin C is a normal part of the healthy adrenal glands and is necessary for the glands to cope with stress.[93]

Ankylosing Spondylitis

Norman Cousins, former Editor of the Saturday Review, was Chairman of an American Delegation to Russia to consider the problems of culture exchange in 1964. He flew home with a slight fever. The malaise took the form of general feeling of achiness and rapidly deepened. Within a week it was difficult for him to move his neck, arms, hands, fingers and legs. He was hospitalized and his physician, with the aid of several consultants, reported that there was no precise diagnosis. There was a general consensus that he was suffering from a serious collagen illness. Then, on further consultation, his condition was diagnosed as Ankylosing Spondylitis and he was informed that he had one chance in 500 of recovering.

Hans Selye had reported that adrenal exhaustion could be caused by emotional tension such as frustration.[92] Cousins wondered if positive emotions would not produce positive chemical changes. He raised the question—"is it possible that love, hope, faith, laughter, confidence, and the will to live might have therapeutic value"? He had been receiving pain-killing drugs while in the hospital: aspirin, phenylbutazone, codeine, colchicine and sleeping pills.

Cousins checked out of the hospital after he and his physician decided on affirmative emotions as a method of enhancing his body chemistry. He decided that amusing movies would be used to produce laughter. He found that 10 minutes of genuine belly laughter had an anesthetic effect which would give him about two hours of pain-free sleep.[94]

Cousins remembered reading that Vitamin C was effective in combating a wide number of illnesses which included arthritis and the breakdown of connective tissue. He convinced his physician to take him off of the pain-killing drugs and put him on massive daily doses of Vitamin C. He started with 10 grams on the first day, then added 2.5 gram increments each day thereafter until he was taking 25 grams per day. Within eight days he could move his thumbs without pain. Within a few months he was back at work and has improved gradually to near normal over the years. For the past year, Cousins has been Professor of Psychiatry and Biobehavioral Sciences, University of California at Los Angeles, where he lectures to medical students on the Art of Medicine.

Vitamin C Therapy Applied to Miscellaneous Maladies

The above cited therapeutic uses of Vitamin C in various diseases and incidences which require medical care have pointed up the multiple functions or properties of the substance. Dr. Frederick R. Klenner of Reidsville, N.C. has used Vitamin C therapeutically since 1940 in the treatment of more than 20,000 patients. He has used more than one million grams of Vitamin C in his practice and he reports that the patient was either improved or cured following the therapy in such diseases or conditions as bleeding gums, burns, dysentery, carbon monoxide poisoning, chicken pox, barbiturate poisoning, diabetes mellitus, encephalitis, herpes virus, hornet sting, lead poisoning, lockjaw, spider bite, snake bite, measles, pneumonia, mononucleosis, and viral hepatitis. He even used the vitamin in 300 obstetrical cases and observed that labor was shortened and less painful.

Klenner has used up to 30 grams of Vitamin C per day and he often gave it intravenously. Vitamin C therapy has been beneficial in so many diseases and conditions that one almost thinks of it as a panacea or a cure-all but that is not the case. However, Vitamin C is a helpful therapeutic compound for many diseases and conditions.[64,81,95,96,97]

References on request.



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The Ulnar Nerve in the Hand

By
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Introduction

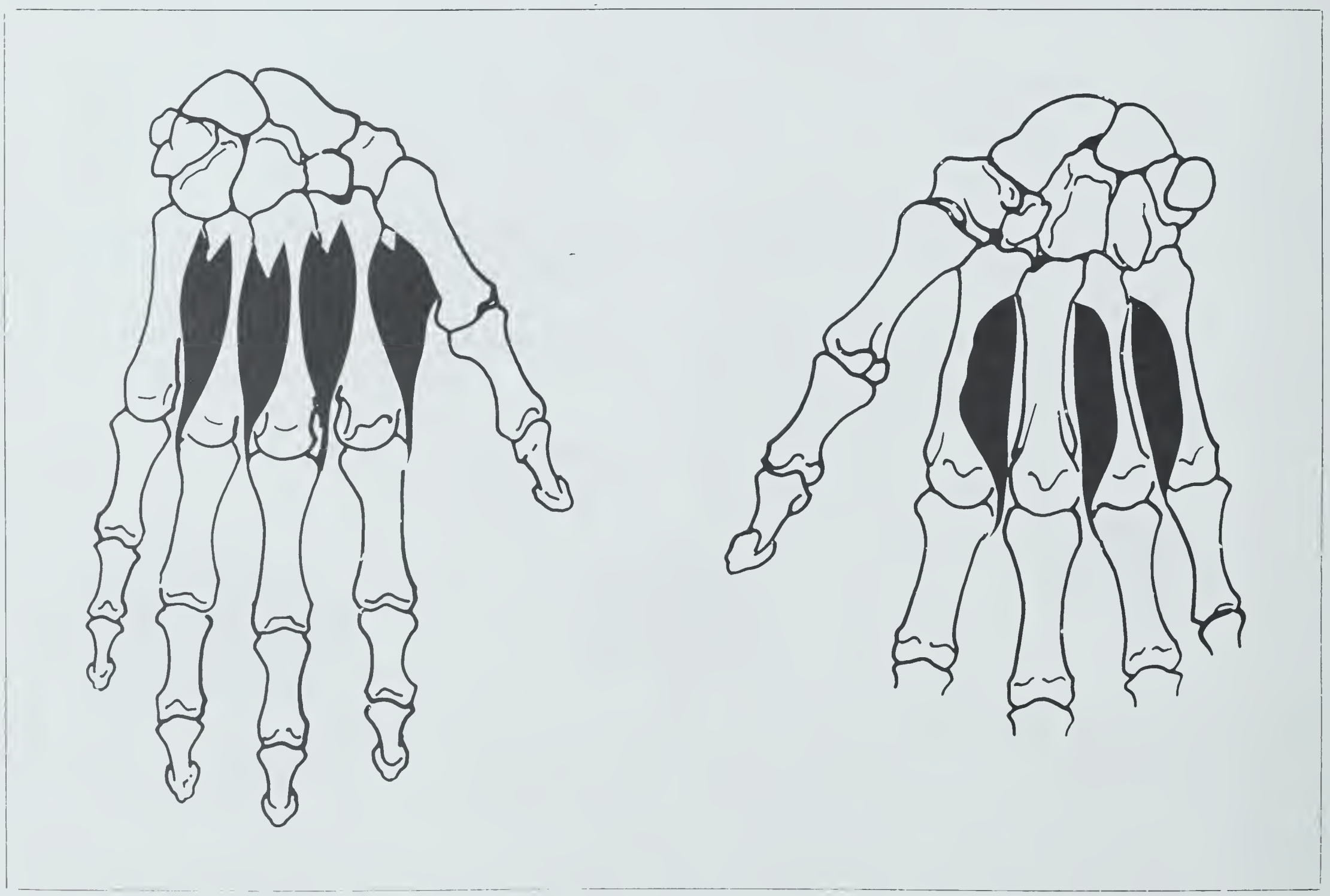
The course of the Ulnar Nerve in the hand offers an exciting study area in its anatomy, clinical signs of involvement, and surgical approach.

History

Hunt called attention to this lesion as early as 1908[1] as an occupational neuritis of the Palmar Branch of the Ulnar Nerve. Involvement by Tumors by Mason,[2] Arteritis by Kaplan[3] together with hemophiliac pseudocyst,[4] anomalous muscles, and ganglion cyst have been reported for every space filling, pressure inducing, lacerative, and traumatic lesion. [5,6,7]

Mannerfeldt,[8] Shea, and McLain[5] have given a recent comprehensive review of the literature on this subject.

Presented at the May, 1980 meeting of the Alabama Orthopedic Society. The authors wish to express thanks to the Department of Pathology of the University of Alabama for Anatomical specimens and to Doctor C. L. Yelton and Doctor Richard Cord for their help in the anatomical dissection.



Ulnar nerve supply to the intrinsic muscles of the hand.

Methods and Material

Four frozen amputation specimens and four recently preserved upper extremities were the most desirable specimens. Dissections on sixteen long period preserved cadaver hands for routine anatomical dissections were fruitless. A nineteen year old college student had a bamboo straw stuck in the upper hypothenar eminence four months prior to examination with laceration of the deep motor branch of the ulnar nerve and subsequent repair. Figure 1.

Anatomy Involved

According to Gray[9] the ulnar nerve usually arises from the seventh cervical, eighth cervical, and the first thoracic nerve roots. It passes non-stop to the elbow where it supplies articular twigs. In the forearm it supplies the ulnar profundi to the ring and little finger, the flexor carpi-ulnaris and articular twigs to the wrist joint. A dorsal sensory branch usually arises before the ulnar nerve reaches the wrist joint to supply all of the dorsum of the little and one half the ring fingers down to the tip. For didactic clarification three zones correlate the anatomy involved, the clinical signs, and the surgical approach.

Part I is defined as that part of the ulnar nerve between the ramus dorsalis and the pisiform entrance into guyon's canal proximal to the abductor digiti V and the flexor digiti V.

Table I

Part I	*Ramus Volaris Manus*
Anatomy	That portion between the ramus dorsalis and pisiform entrance to Guyon's canal proximal to abductor digit V and flexor digit V.
Clinical Signs	(1) Loss of sensation one and a half ulnar fingers. (2) Loss of all ulnar motor intrinsics. (3) Ulnar profundi *Preserved*.
Surgical Approach	S-shaped Volar ulnar incision.

Part II going dorsally from guyon's canal to dorsal to the opponens digiti V. As the deep motor branch enters Guyon's canal it passes between the abductor digiti V and gives branches to these muscles. A twig to opponens digiti V is given volar to that muscle.

Table II

Part II	Guyon's Canal to Dorsal to opponens digit V.
Anatomy	
Clinical Signs	(1) Sensation to one and a half ulnar fingers *preserved.* (1a) Palmaris brevis preserved. (2) Abduction Vth digit preserved (Wartenberg's sign) (3) Loss ulnar intrinsics opponens V to first dorsal interosseous. (4) Ulnar extrinsics preserved.
Surgical Approach	S-shaped volar ulnar incision continued distally.

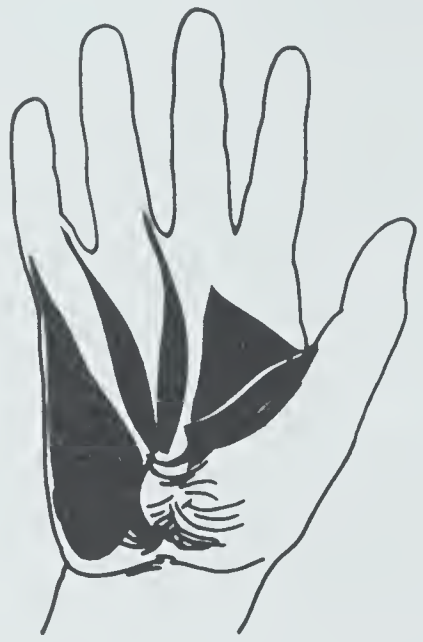
Part III passes from dorsal to opponens digiti V swinging across the palm deep to the finger flexors to terminate at the first dorsal interosseous. In route it supplies the ulnar lumbricals three and four, and then in order the three volar and four dorsal interossei.

Table III

Part III	
Anatomy	Dorsal to opponens v to first dorsal interosseous
Clinical Signs	(1) Sensation ulnar one and a half fingers preserved. (2) V digit intrinsics preserved. (3) Loss ulnar palmar intrinsics depending on site of injury to first dorsal interosseous. (4) Ulnar extrinsics preserved.
Surgical Approach	Bunnell incision continued parallel to distal palmar crease deeper. (A) Incision at ulnar side of volar carpal ligament and radial retraction fingers flexors.

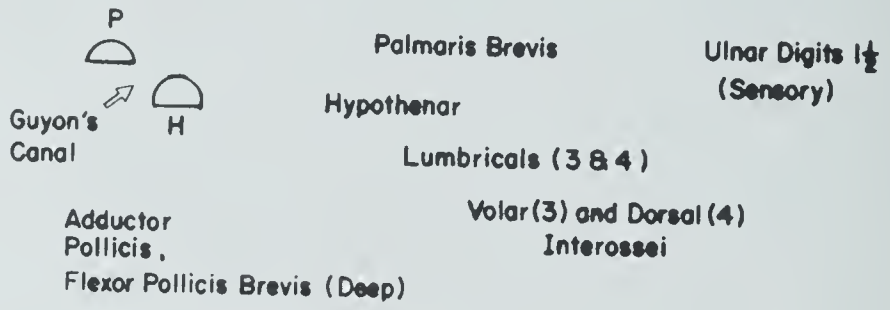
Terminal branches are supplied to the first dorsal interosseous, all of the adductor pollicis brevis, and the deep head of the flexor pollicis brevis. There may be anastomotic branches to the median nerve at this junction. Variations with cross median nerve supply to these muscles have been noted by Mannerfeldt together with vascular branches to the various arteries.

Engber and Geimer[10] report variations in origin of the ulnar palmar cutaneous branch of the ulnar nerve proximally to the origin of the dorsal sensory branch, from the Dorsal Sensory Branch.



ULNAR NERVE DISTRIBUTION (SCHEMATIC)

Superficial branch
Deep branch



TOPOGRAPHICAL: hypothenar, 3 and 4 lumbricals, adductor pollicis and deep head of flexor pollicis brevis.



Eighteen month post-operative repair of Part II deep motor branch ulnar nerve. The S-shape incision from volar-ulnar wrist up hypothenar eminence. All intrinsic adductors are functioning against gravity.



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Clinical Signs

Lesions of Part I show loss of sensation to one and a half ulnar fingers and loss of all the ulnar motor intrinsics. The extrinsic ulnar profundi to the ring and little finger are preserved. Dorsal sensation to one and a half ulnar fingers is preserved. In lesions of Part II dorsal and volar sensation to one and a half ulnar fingers is preserved to the tips of the fingers. The palmaris brevis action is preserved. Abductor digiti V action is preserved. (Wartenberg's Sign). In Part III the deep motor branch of the ulnar nerve is tithered and is more vulnerable to pressure and trauma in this area. The diagnostic possibility of this lesion is anatomically visible. In Part III lesions, volar and dorsal sensation to one and a half ulnar figures is preserved. The Vth digit intrinsics are also preserved. There is loss of ulnar palmar intrinsics extending to the first dorsal interosseous depending on the site of injury.

Surgical Approach

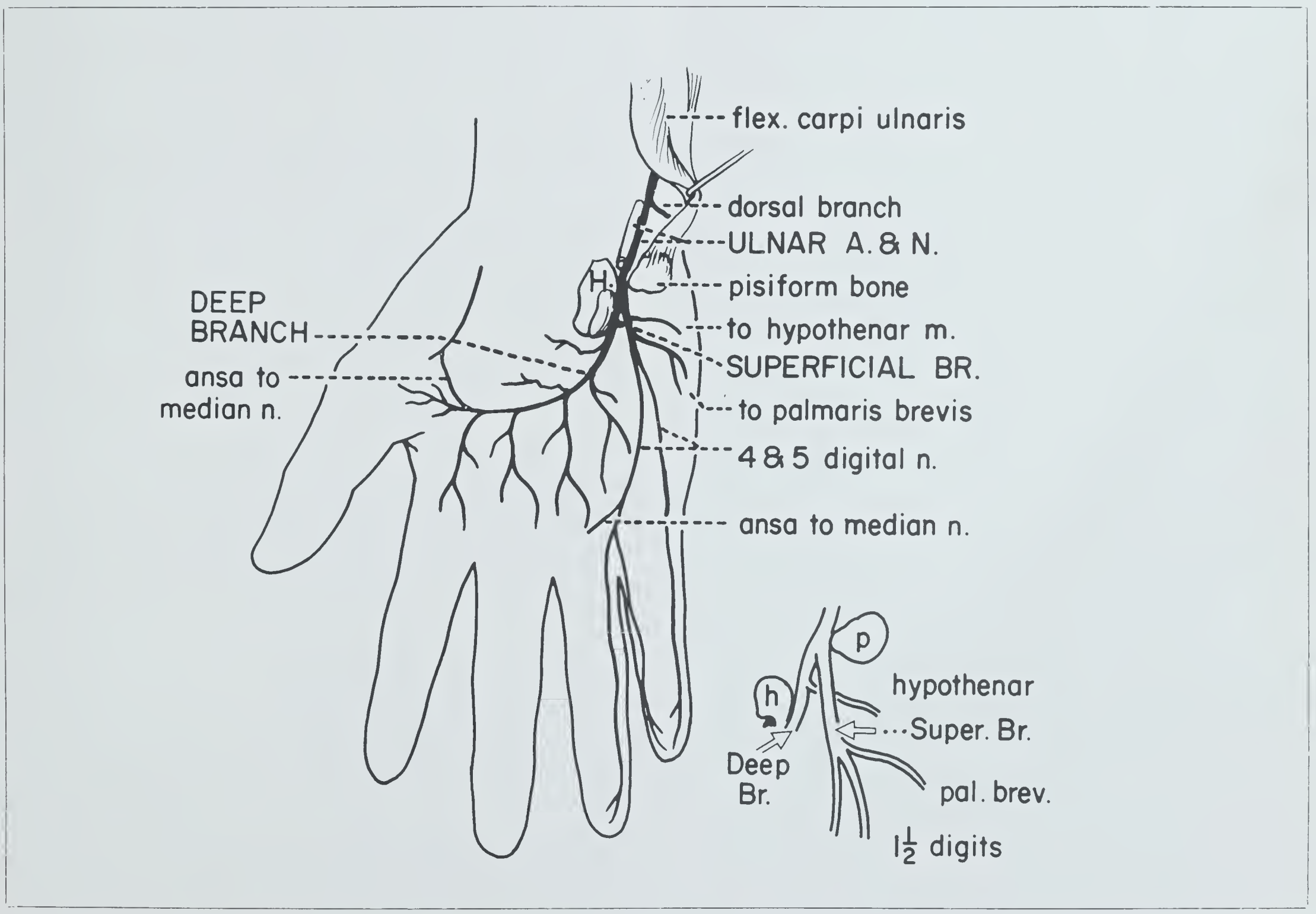
Exposure to Part I, this is through an S-shape volar ulnar incision at the distal wrist crease.

For lesions of type II, the S-shape volar incision is continued distally up the hypothenar border.

For type III, the bunnel incision is continued parallel to the distal palmar crease. A deep incision at the ulnar side of the volar carpal ligament allows radial retraction of the finger flexors.

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TRAUMA TO A LARGE MUSCLE GROUP

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A direct blow to any large muscle group such as the quadricep may cause severe hemorrhage at the site of the injury and disability of the affected extremity. This type of injury should be evaluated immediately and treatment instituted with the patient under observation.

The following case presentation illustrates the seriousness of the injury even with immediate recognition and vigorous treatment.

Case

As seen on the film, a football running back was struck on the left thigh when he was tackled by another player. Both players were moving at full speed and the ball carrier could not avoid the direct blow. The player experienced pain in the left anterior thigh and was removed from the game. Ice was applied immediately to the area and the player was not returned to the game. After the game the player was re-evaluated by the trainer and physician. At that time, the findings did not reveal any limitation of flexion of the knee. Swelling was very minimal. However, there was moderate tenderness of the middle third of the left quadricep group. The patient was instructed to continue ice packs to the site and allowed to eat supper with the team. Two hours later, while eating supper, the patient developed severe pain in the left thigh and became sweaty. He was seen immediately and admitted for further treatment.

Physical Findings

Nineteen year old black male complaining of pain in the left thigh. The skin was cool and clammy. His blood pressure was 140/88, and pulse, 88. Examination: obvious swelling of the left anterior thigh with severe tenderness in the area of the middle third. Flexion of the knee past ten degrees caused severe pain. The remainder of the physical examination was normal.

Admission Measurements of Thigh

	Right	Left
5 inches above the platella	23 in.	23 in.
8 inches above the platella	23½ in.	25 in.
11 inches above the platella	24 in.	26 in.

Admission Lab and Follow Up Lab

It was noted that the hemoglobin was 14.7 when the patient was admitted to college in 1979.

Lab	Day 1	Day 2	Day 3	Day 4	Day 5
Hb	13.2	12.1		12.4	
Hmct	39	38		39	

Measurement of Left Thigh During Hospital

	Day 1	Day 2	Day 3	Day 4
5 inches above the platella	23	22½	22½	22½
8 inches above the platella	25	26	26	26
11 inches above the platella	26	27	26¾	26

Flexion of Knee

Day 1	Day 2	Day 3	Day 4	Day 5
10°	10°	10°	12°	15°

By the fifth hospital day, it was felt that the bleeding had stablized and the patient was discharged. The patient was discharged with the left thigh wrapped from toe to groin with a cotton roll and ace bandage. The patient was to remain on crutches with weight bearing on left leg.

Rehabilitation

The patient was followed closely in the training room every two days. Measurements of the thigh and flexion of the knee were checked regularly. After two weeks the patient was started on light resistive exercises. After four days of exercises the patient developed a slight effusion and soreness of the knee. Exercises were discontinued for one week and then restarted. The next

sixty days consisted primarily of increasing resistive exercises four or five times weekly until the patient had regained complete flexion of the knee. It is noted that the patient also was instructed to exercise the right leg to prevent atrophy due to disuse. Serial x-rays showed a developing myositis ossificans (see attached x-ray for final mature myositis ossificans). The patient has been allowed to participate in spring training. However, a specially designed thigh pad is used in order to give added protection to the left thigh.

Myositis ossificans is bone formation appearing in soft tissues. Most commonly it follows blunt trauma (myositis ossificans traumatica) but can be the result of severe burn injury, paraplegia or some orthopaedic procedures.[1] There is a congenital disease with the main feature being progressive soft tissue ossification (myositis ossificans progressiva).[2] The pathologic process in myositis ossificans traumatica is poorly understood. Bleeding into a muscle mass is probably an important factor, but this alone is not sufficient to cause the disease.[3]

Drug therapy with such agents as ethylene-diaminetetra-acetic acid (EDTA), ethane-1-hydroxy-1, 1-diphosphonate (EHDP), and steriods have been ineffective. Trails of calcitonin have been inconclusive.[4] Early treatment of muscle contusions may limit the development of myositis ossificans traumatica. Jackson and Feagin[5] reported the treatment of 64 cases of quadriceps contusion. Their treatment regimen included rest, ice, compression, and elevation of the injured extremity for 24-48 hours, gradual range of motion exercises until the patient could achieve 90 degrees of knee motion and normal gait, and then progressive resistance exercises till full range of motion and strength was regained. They found that patients who had "greater than 90 degrees of knee motion 48 hours after injury had a mean disability of six and a half days, while those with less than 90 degrees of knee motion had a mean disability of 66 days." They further stress that prevention of re-injury during the recovery phase is very important. Surgery is seldom needed to regain normal function.

Conclusion

This case is presented to bring to the attention of physicians, coaches, and trainers, the importance of recognizing and treating blunt injuries to large muscle groups that may appear insignificant in the beginning. Also, of considerable importance, is the close supervision of rehabilitation by the physician and trainer in order to restore full function to the affected extremity.



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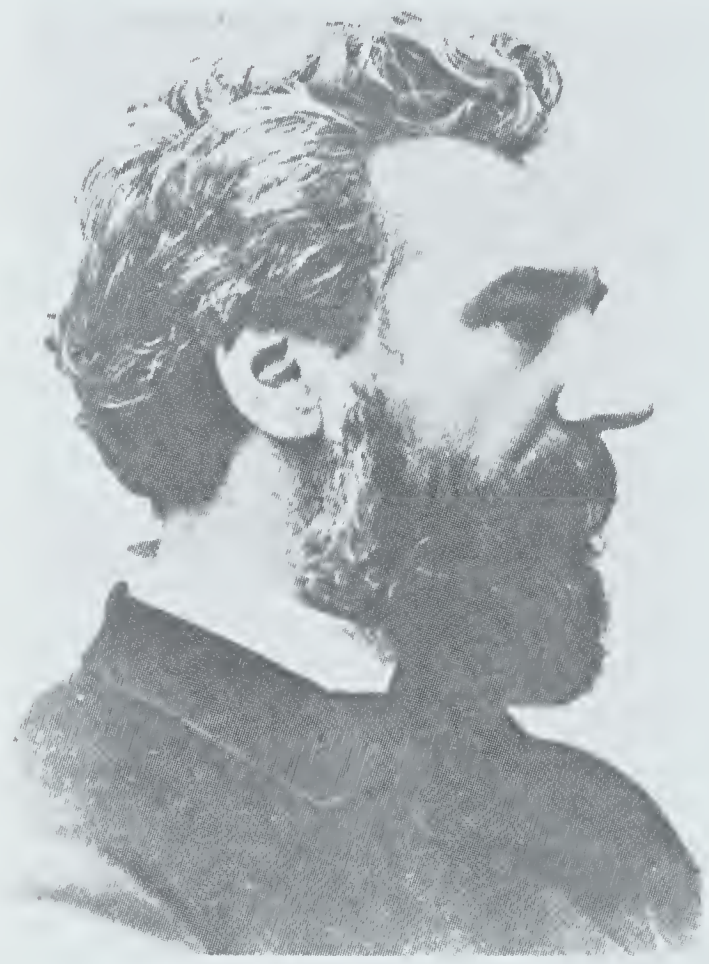
ALEXANDER GRAHAM BELL:
The Telephone and the Human Ear

by

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Assistant Professor
Department of Otolaryngology
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Alexander Graham Bell -
"U. S. Citizen, Teacher of the Deaf"



Clarence John Blake, M. D.,
Otologist, aged fifty.

Even though it is most unusual for all members of a family to share one interest that continues through three generations, the Bell family devoted their lives to the training of the human voice. The first Alexander Bell began his life as a shoemaker, but later, he went on stage filling roles that called for a Scottish dialect.

Having an ear for the spoken word, he became a master of articulation of the English language and authored books on elocution and the cure of stammering. Thus, the shoemaker became known as a Professor of Elocution.

Alexander Graham Bell, his two brothers, and their father, Alexander Melville Bell enjoyed reputations as elocutionists. Alexander Graham's mother had only residual hearing, as evidenced by her use of an ear trumpet, following a bout of scarlet fever when she was four, but she retained oral communication ability with the instruction of a governess, and, even through hearing handicapped, she gave her sons their early education at home including piano lessons. From her, Alexander Graham Bell learned the problems of the deaf, and gained his knowledge of reaching, teaching and potentially educating the deaf using the oral approach.

During these years, Melville Bell developed a successful method for teaching the deaf how to speak called Visible Speech. It was evident to Melville Bell that the deaf were silent because they could not hear, not because they lacked a physical organ, the vocal cords, that could respond. He thought that through their learning symbols, the deaf could acquire the faculty to make sounds, and from this, in time, could attain the ability to speak.

Visible speech became a crusade to the dedicated Bell family. They received an amazingly excellent reputation as a result of their teachings and work through this method. In 1868, Melville Bell, too busy with his own affairs, declined an offer to instruct students in this method at a school for the deaf in Warwick Gardens, but he sent his son as a substitute.

Thus began Alexander Graham Bell's lifelong profession as a teacher of the deaf. Concerning his work at the school, it is said that after five lessons the children knew all the consonants and some of the vowels, and one of the children could say: "I love you, Mama". There is no doubt that his work was exceptional.

SELF-EDUCATED

Among the features that characterized Alexander Graham Bell's education are that he was trained by his mother, grandfather and father at home in subjects relating to sound and speech, that his classroom education may have lasted only four years, and that he was self-educated in telegraphy and electricity.

The Bell family had an excellent reputation in the field of deaf education in England before they moved to Canada. Alexander Graham Bell's two brothers had died of "consumption", and the young teacher, too, was pale and weak, so the move to Canada was for health

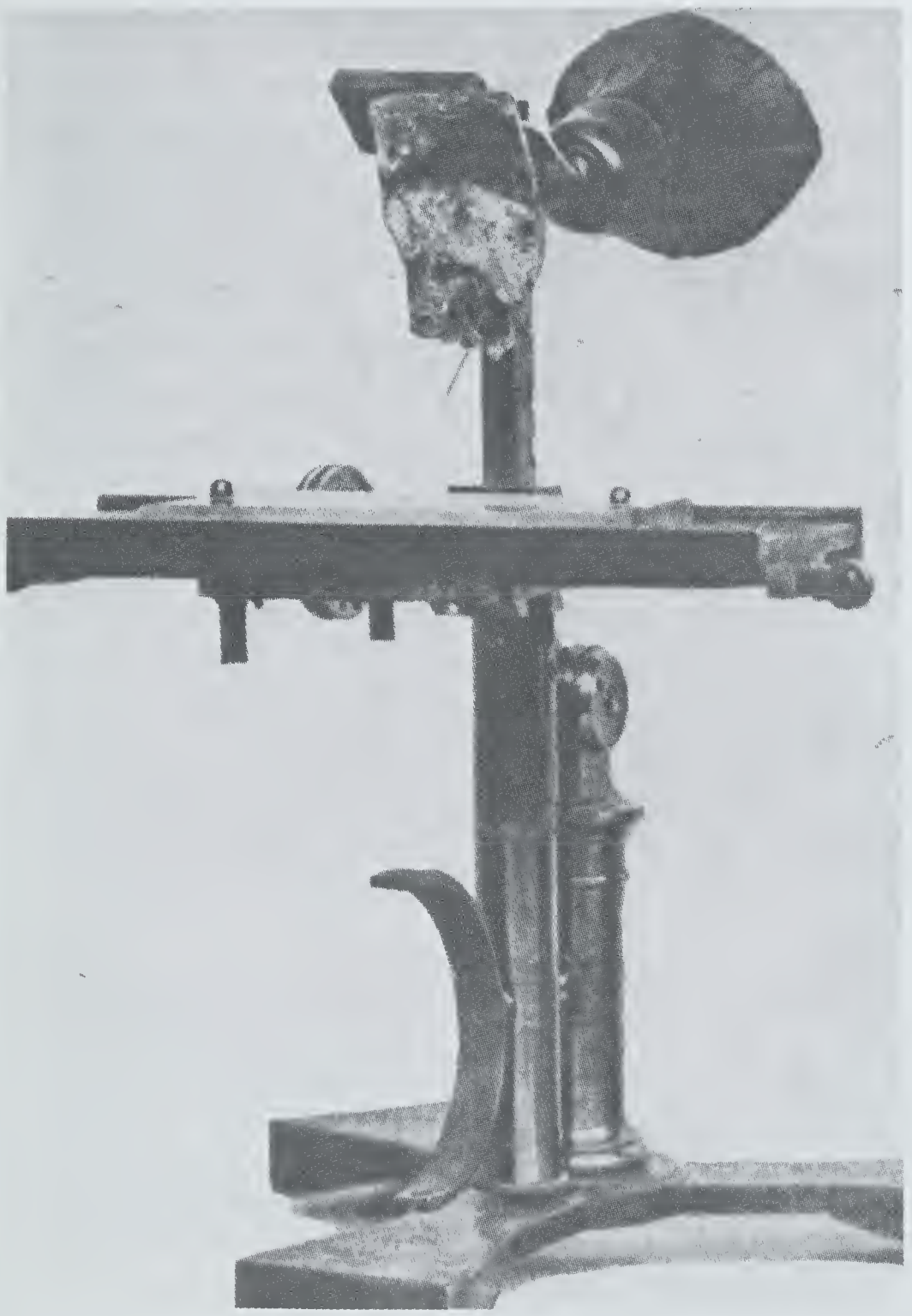
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reasons. In America in 1871, Bell started by teaching Visible Speech in what became known as the Horace Mann School (originally known as Boston School for Deaf-Mutes). Gardner Hubbard, a prominent Bostonian patent lawyer, wanted Melville Bell to teach Visible Speech to his three year old, deaf daughter. Melville once again referred the pupil to his son. After his time became too involved with his electrical experiments, Graham Bell only supervised her instruction. This deaf child learned to talk without ever using sign language and later married Alexander Graham Bell.

Gardner Hubbard, who helped finance Bell's experiments, placed the telephone patent in Washington the morning of February 14, 1878 without the knowledge or consent of the inventor, who wanted to make more adjustments on the instrument. That afternoon a patent for a telephone was applied for by another inventor, Elisha Gray, but U. S. Patent No. 174,465 belonged solely to Alexander Graham Bell.

DR. BLAKE OF BOSTON

In Boston in 1871, Bell met Clarence John Blake, M. D., an eminent otologist, who earlier had trained with Adam Politzer in Vienna. Bell's project at the time was to perfect a phonoautograph, an apparatus to record specific sounds. Because Bell's pupils often had unmodulated voices characteristic of the deaf, he felt that making speech truly "visible" could help deaf children to speak in normal tones. Blake provided Bell with the knowledge of the vibration system of the tympanic membrane and ossicles, showing him what he had learned of a "counter-balance" between the malleus and incus.



The human ear phonoautograph used by Blake and Bell in their experiments.

A human temporal bone was secured from Harvard Medical School by Blake and Bell. Step by step, bone and soft tissue were cut away to expose the middle ear, and the stapes was removed. When a fine wheat straw, used as a stylus, was glued to the incus, it extended downward with a free tip lightly touching a plate of smoked glass. In operation, the tympanic membrane was vibrated by sound. The vibration was conveyed through the ossicles to the tip of the stylus. The movement of the stylus formed a path in the smoked glass, drawing a waved line corresponding to the character and pitch of the musical tone sound. The plate was preserved by covering it with varnish.

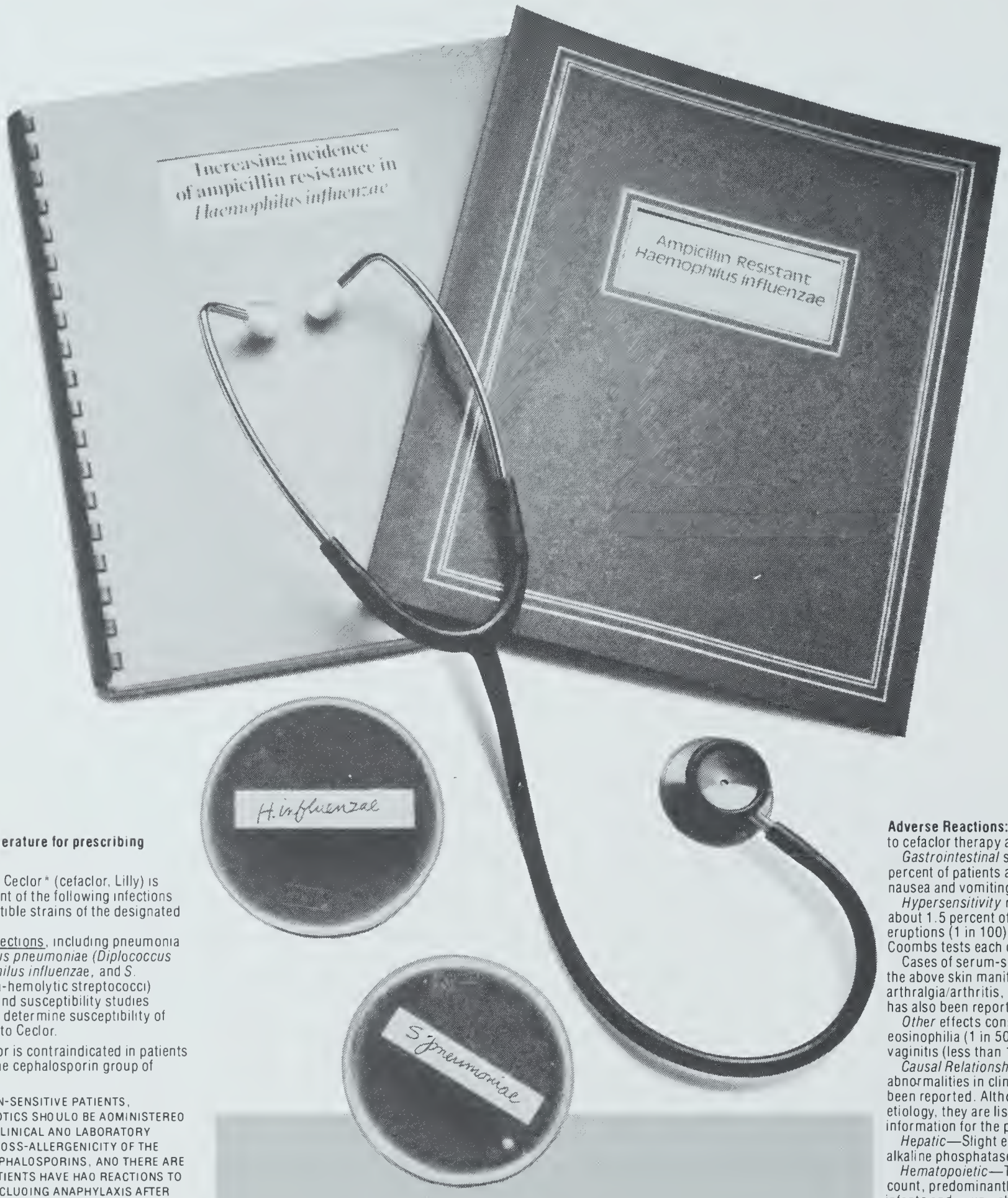
Blake wrote several articles that appeared in otological journals regarding the phonoautograph, and Bell, it seems, gave lectures concerning the instrument. It is known that Bell, in the summer of 1874, spent his vacation time in Canada at his parent's home reading, studying, conducting electrical experiments, and making tracings with his specimen of the human ear.

It was at that time that Bell conceived the membrane telephone. In one of his early lectures on the telephone, Bell spoke of the human ear phonoautograph, saying to his audience: "I would merely direct your attention to the apparatus itself, as it gave me the clue to the present form of the telephone." He wrote: "I was carrying on experiments with the phonoautograph constructed from the human ear which Dr. Blake had prepared for me. I do not think that the membrane of this ear could have been half an inch in diameter and it appeared to be as thin as tissue paper. I was much struck by the disproportion in weight between the membrane and the bones that were moved by it; and it occurred to me that if such a thin and delicate membrane could move bones that were, relatively to it, very massive indeed, why should not a larger and stouter membrane be able to move a piece of steel in the manner I desired? At once the conception of a membrane speaking telephone became complete in my mind; for I saw that a similar instrument to that used as a transmitter could also be employed as a receiver. The arrangement thus conceived in the summer of 1874 was substantially similar to that shown of my patent of March 7, 1876."

However, the membrane diaphragm that Bell had prepared, and patented, wasn't just exactly right. In 1877, Bell and Watson decided on an all-metal diaphragm magneto phone by which sound was changed

Continued on page 62

An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [103080R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

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8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

100061



Mrs. O. B. Carr, Jr.
President, A–MASA



A Banner Year

It's a great time to belong to the medical auxiliary. Never in our 58 years have there been so many opportunities for volunteer service in our communities. And never has there been such a close liaison with the medical association based on involvement in complemental health-related activities.

As a doctor's spouse, we have the marvelous privilege of being a part of the medical family, and being close to our mates as they work for better health care. And through this closeness, we are more aware of the health problems in our communities. Our privileges demand that we share ourselves: our caring, our experience and our time. This sharing calls for organizing our personal priorities in order that our special talents and energies are used where they are most needed.

Interested, active people are the lifeblood of a growing, active organization like ours and the 1980-81 auxiliary year has been no exception! Through active support for membership Mrs. Robert Estock, First Vice President, and our four District Vice Presidents, our membership has reached an all time high of 1,951 members. This increase will give Alabama an additional Delegate and Alternate Delegate to the AMA Auxiliary Convention in June 1981. We were very pleased to have organized Macon County Auxiliary and appreciate the Macon County Medical Societies' support of our newest county auxiliary.

We are proud of the leadership county auxiliaries have exhibited in the past by joining efforts with local organizations. We feel that these efforts, coupled with the state auxiliaries alliances with large state-wide groups, is a positive indication that, as a volunteer health organization, A-MASA is a leader in Alabama.

An example is the Health Education Awareness Seminar held at the University of Alabama in Birmingham, October 29, 1980, jointly sponsored by the auxiliary and UAB School of Education. The seminar brought together Health Educational Professionals from Alabama's colleges and universities, superintendents of education, principals, teachers, legislators, representatives of many health related organizations in Alabama, parents and volunteers.

Revitalization efforts for the continued need of Comprehensive School Health Education in Alabama were realized and the State Board of Education passed a resolution requesting all schools in Alabama observe April 7, 1981 (World Health Day) as Alabama Health Education Day.

All teachers and students were asked to focus attention on health education through health fairs, special projects, guest speakers, or similar health activities. Governor Fob James proclaimed April 7 as the First Alabama Health Education Day in the state's schools, and perhaps the first of many to be observed in the years to come.

Working together, we fund the only national philantropic fund-raising effort of the American Medical Association Auxiliary. Available financial assistance for medical students is not only diminishing, but is also becoming restricted. Auxilians in Alabama support medical education in many ways. Many counties have scholarship and loan funds for medical students, nurses and for those training for health-related careers. Checks of over $30,000 to support medical education will be presented to the Deans of Alabama's Medical Schools at the A-MASA Convention in Mobile, April 24, 1981.

I do not have the space nor you the time to be fully informed about the many programs and activities of each of the 34 county auxiliaries in our state. A detailed report of our year is published for you in the MASA Convention Handbook.

Of special interest at the A-MASA Convention this year will be our guest; Mrs. John F. Vaughn, AMA Auxiliary President from Vancover, Washington, Mrs.

Charles A. Prater, Southern Medical Association Auxiliary President and Dr. James Todd, AMA Board of Trustees. Dr. Todd's special presentation for auxilians is entitled "The Liabilities of a Physician's Spouse". Needless to say, we are looking forward to his presentation!

Communications have been excellent this year and we appreciate all the help and support we have received from the Medical Association of the State of Alabama. The professional staff of MASA, under the direction of Mr. Lon Conner, Executive Director, are very supportive with their time, talents and sincere interest in auxiliary activities and goals, for this we are most grateful.

Serving as Auxiliary State President has been a memorable privilege which I shall always treasure. Albert Schweitzer stated: "I don't know what your destiny will be, but one thing I know, the only ones among you who will be really happly are those who have sought and found how to serve."

Through service to our communities medical auxiliary members have contributed to quality health care for the betterment of each community in Alabama. A special thanks to each Alabama physician for continued support and interest in A-MASA as we continue in our partnership together to advance the cause of preventive medicine in Alabama.

Mary

Classified Advertising

UNIVERSITY TRAINED INTERNIST—M.D. 43 years old. Must limit practice due to advanced coronary heart disease. Prefer hospital of any size in South Alabama where night coverage in E.R. is provided. C.V. available on request. Sam L. Hollobaugh, M.D., 1030 Scenic Rd., Ft. Payne, Alabama. 35967.

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ALEXANDER GRAHAM BELL

Continued from page 59

to electric current, and the current was changed back to sound.

Before, during, and after completing the work on the telephone, Alexander Graham Bell also accomplished the following:

- He worked with deaf children, although not as fervently, after the telephone invention, mainly because of lack of time.
- He taught for income and he received no payment from those that invested in his electrical experiments.
- His (and Blake's) phonoautograph was a precursor of the phonograph of Edison; they did not realize how close they were to this invention.
- He invented a wax-disc phonograph record.
- He gave almost as many lectures in Visible Speech as he did on the telephone during a fifteen month stay in England in 1877-1878.
- He received no money for his invention for twenty years following his invention because of litigation with the Western Union Company.
- His method, as he developed it, for teaching the deaf was the oral method in contrast to the silent method (sign language). He encouraged the deaf child to have experience with normal hearing children in and out of school. Feuds and debates between Bell and other groups were common and frequent in the early 1900's. From all of this emerged a third system, the simultaneous method which used, however, elements of both. This philosophy for teaching today is known as Total Communication. Oral communication has remained a separate entity. It has not compromised its principles by adding components from the manual method or Total Communication.
- Bell not only gave himself, but he also gave much of his wealth for the welfare of the deaf. It is estimated that he gave $450,000 to lay the foundation for the Alexander Graham Bell Society for the Deaf.

In one of his many lectures, Bell said: "My original skepticism concerning possible speech reading had one good result; it led me to devise an apparatus that might help children...a machine to hear for them, a machine that would render visible to the eyes of the deaf the vibrations of the air that affect our ears as sound...It was a failure, but that apparatus, in the process of time, became the telephone of today."

His tombstone states it all: "Alexander Graham Bell, U. S. Citizen, Teacher of the Deaf."

ACKNOWLEDGMENT

We thank Sue J. Livingston for her assistance in preparation of this manuscript.

The following references were used as general source of information:

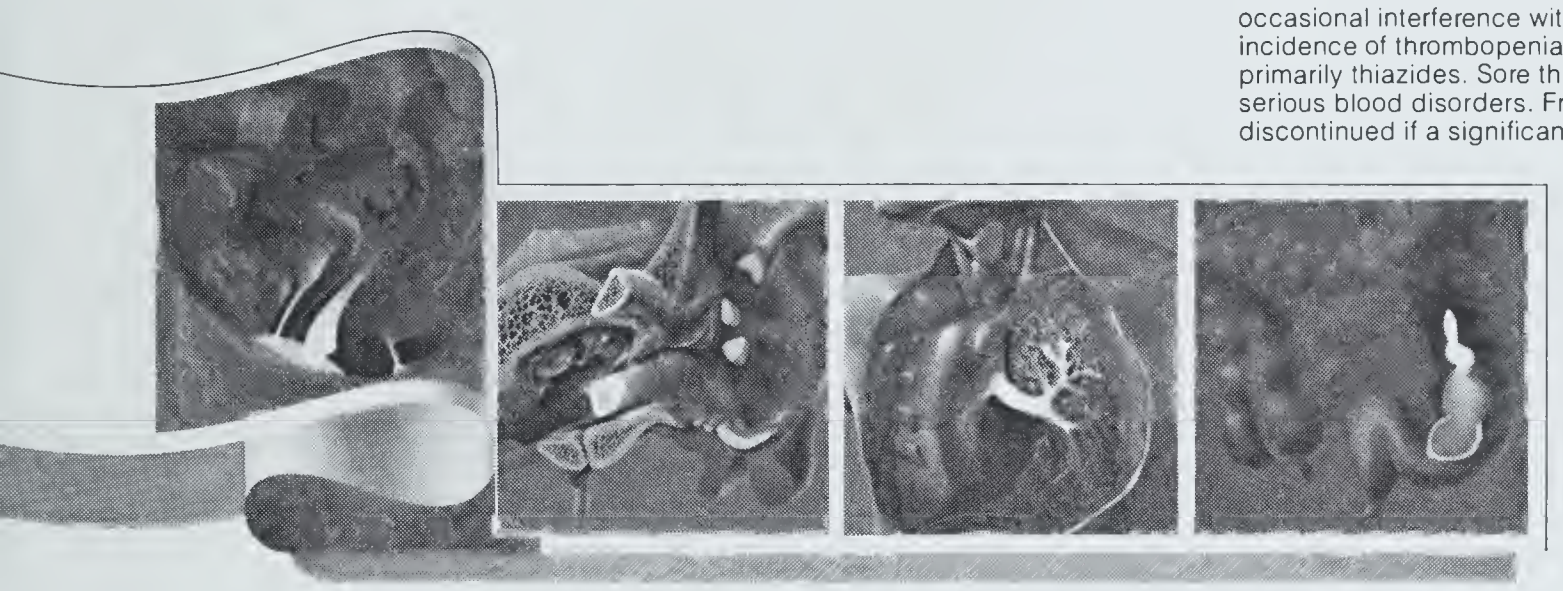
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Snyder C: Clarence John Blake and Alexander Graham Bell, Otology and the Telephone. *Annals*, Vol. 83, No. 4, Part 2, July-August, 1974.

Bactrim™
(trimethoprim and sulfamethoxazole)
succeeds

Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



in recurrent UTI...
a continuing record of high clinical effectiveness against common uropathogens

in acute otitis media in children...
effective against both major otic pathogens...with *b.i.d.* convenience

in acute exacerbations of chronic bronchitis in adults...
clears the sputum and lowers its volume...on *b.i.d.* dosage

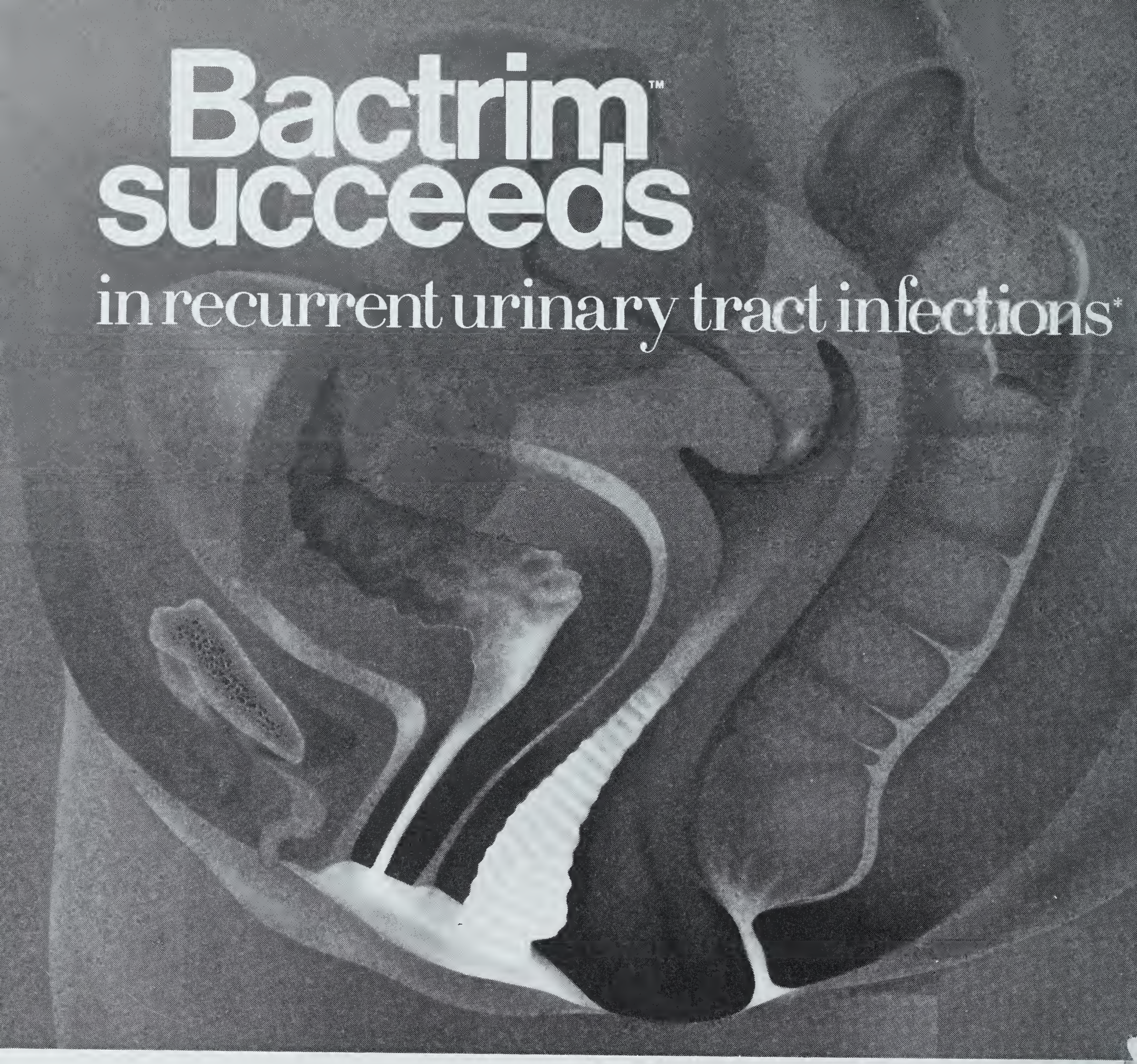
in shigellosis...
faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:
Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that Initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.
For acute otitis media in children due to susceptible strains of *Haemophilus Influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae.* To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.
For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.
For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.
Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were Immunosuppressed by cancer therapy.
Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.
Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.
Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.
Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.
Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.
Dosage: Not recommended for infants less than two months of age.
URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:
Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.
Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.
For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.
ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:
Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.
PNEUMOCYSTIS CARINII PNEUMONITIS:
Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.
Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980..**2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

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160 mg trimethoprim and 800 mg sulfamethoxazole

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*due to susceptible strains of indicated organisms

Please see previous page for summary of product information.

JOURNAL
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VOLUME 50, NO. 11, MAY 1981

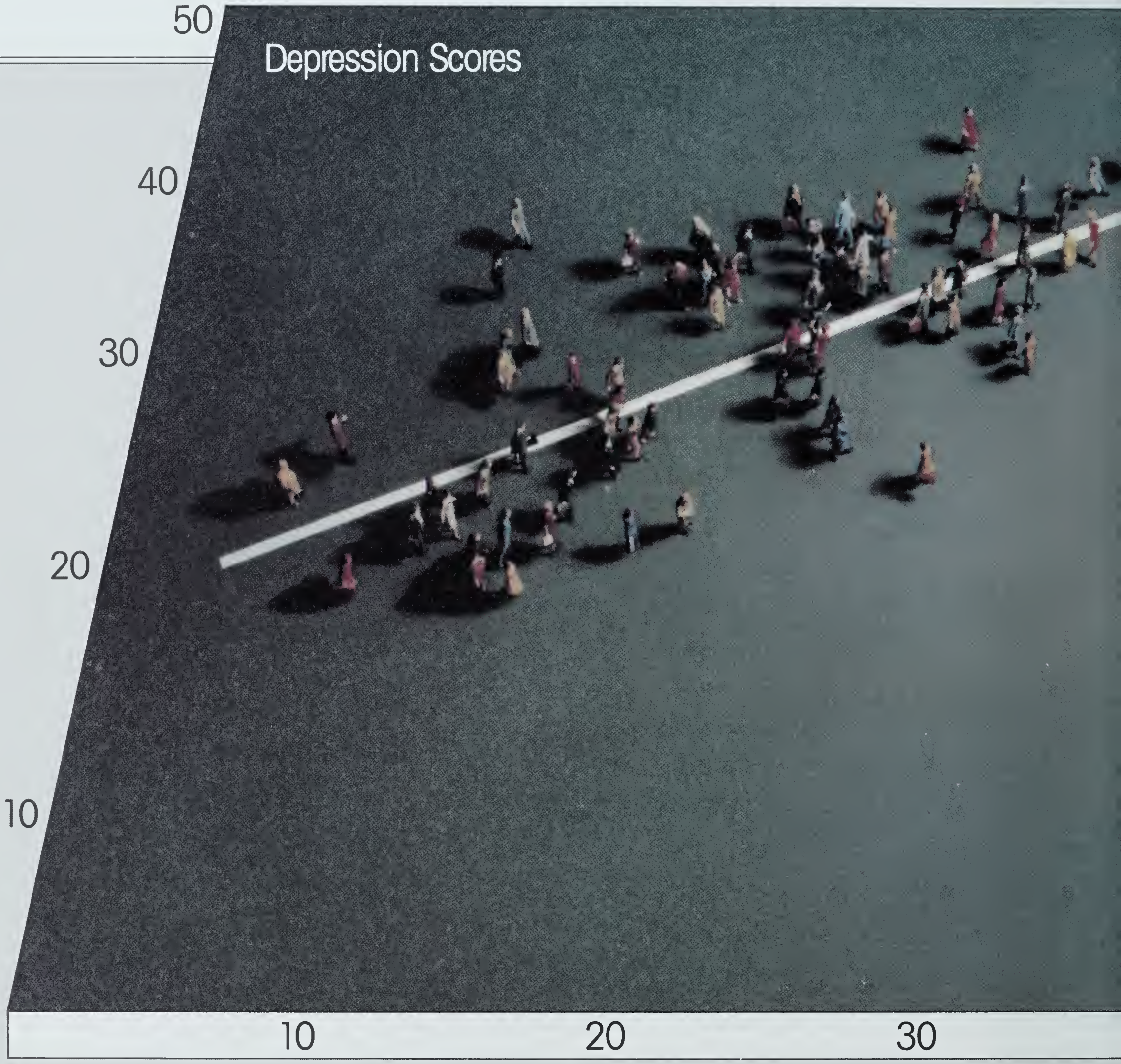
Annual Session Views

See page 29

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FOR THE 7 OF 10 NONPSYCHOTIC





Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

[3]Adapted from Claghorn, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

ROCHE

DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]



Most depressed patients are also anxious. . .

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.[5] Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine,* ed. Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35:*1359-1365, 1978. **3.** Claghorn J: The anxiety-depression syndrome. *Psychosomatics 11:*438-441, 1970. **4.** The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry 137:*1163-1172, 1980. **5.** Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology 61:*217-225, 1979.

In moderate depression and anxiety

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquilizer–Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety
Contraindications: Known hypersensitivity ta benzodiazepines or tricyclic antidepressants Do nat use with monaamine oxidase (MAO) inhibitors or within 14 days following discantinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have accurred with concomitant use; then initiate cautiausly, gradually increasing dosage until optimal respanse is achieved. Cantraindicated during acute recovery phase fallowing myocardial infarction.
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucama. Severe canstipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Clasely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and pralongatian of conduction time reported with use of tricyclic antidepressants, especially high doses Myocardial infarction and stroke reported with use of this class af drugs.) Caution patients about passible combined effects with alcahol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use cautian in administering Limbitrol to addiction-prone individuals ar thase wha might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to thase af barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyraid patients or those an thyroid medication, and in patients with impaired renal or hepatic function. Because af the possibility af suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolanged treatment. Amitriptyline component may block action of guanethidine ar similar antihypertensives. Concomitant use with other psychotrapic drugs has not been evaluated: sedative effects may be additive. Discantinue several days before surgery Limit concamitant administration of ECT ta essential treatment. See Warnings for precautions about pregnancy. Limbitrol should nat be taken during the nursing period. Not recommended in children under 12.
In the elderly and debilitated, limit ta smallest effective dosage to preclude ataxia, aversedation, confusion ar anticholinergic effects
Adverse Reactions: Most frequently reported are thase associated with either campanent alone: drawsiness, dry mouth, constipatian, blurred vision, dizziness and blaating. Less frequently occurring reactions include vivid dreams, impatence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reparted as side effects of both Limbitrol and amitriptyline. Granulacytapenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactians nat reported with Limbitrol but requiring cansideration because they have been reported with one or both components or closely related drugs:
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarctian, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehensian, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptams, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, phatosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, easinophilia, purpura, thrambocytapenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lawering of blaad sugar levels.
Other: Headache, weight gain ar loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an averdase. Treatment is symptamatic and suppartive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline paisaning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for same patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage af three to four tablets daily in divided doses, increased ta six tablets ar decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage af three ta four tablets daily in divided doses, far patients who da not talerate higher doses.
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The Medical Licensure Commission

The newly enacted Medical Licensure Commission is not simply a rose by another name. Although it does supplant the old State Licensing Board for the Healing Arts, the differences are broad and deep.

The old Board was largely a rubber-stamp edifice, yet its existence posed the threat of future mischief should some unscrupulous politician want to use it for harassing Alabama doctors.

Legislation creating the new Commission did several things:

First of all, it shed the chiropractic function, giving that to the State Board of Chiropractic Examiners, where it belongs.

Secondly, it gave the Commission true licensing powers and provided for a staggered-term membership on the Commission that brings the agency into conformity with current legal realities by providing appointment by elected officials—the Governor, Lieutenant Governor and Speaker of the House.

By staggering of terms and division of appointing authority between three political offices normally having a diverse constituency, every possible precaution has been made against domination by any faction that could exert a controlling influence inimical to the interests of the public and the medical profession.

To the maximum extent possible in a democratic form of government, it should be a free and unfettered regulatory agency in the best tradition.

Of course, I have heard, as you have, horror stories beginning "What if such and such..." Doomsday scenarios are, however, rarely useful. Even the worst case that is even remotely possible would still offer reasonable protection against political distortion of the intent of the act.

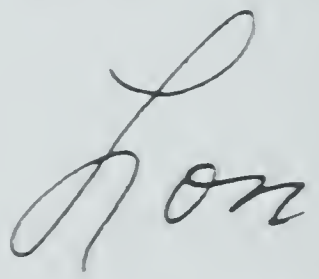
The Commission, staffed and funded by the Board of Medical Examiners, would receive reports and recommendations of the Board on all matters affecting licensure, but would not be bound by them. This overall discretionary power was certainly legally necessary in the light of current law and judicial precedent.

The Commission would have the exclusive power to license, to revoke and suspend licenses. It would have rather broad powers of enforcement and inquiry, including subpoena, and its findings of fact would not normally be subject to judicial review, although subject (as all regulatory agencies are) to writ of mandamus.

The Chairman of the new Commission is Leon C. Hamrick, M. D., veteran Chairman of the State Board of Censors and the Board of Medical Examiners. He was appointed by the Lieutenant Governor, who has two appointments under the law, as does the Speaker of the House. The Governor has three, thus accounting for a seven-physician membership.

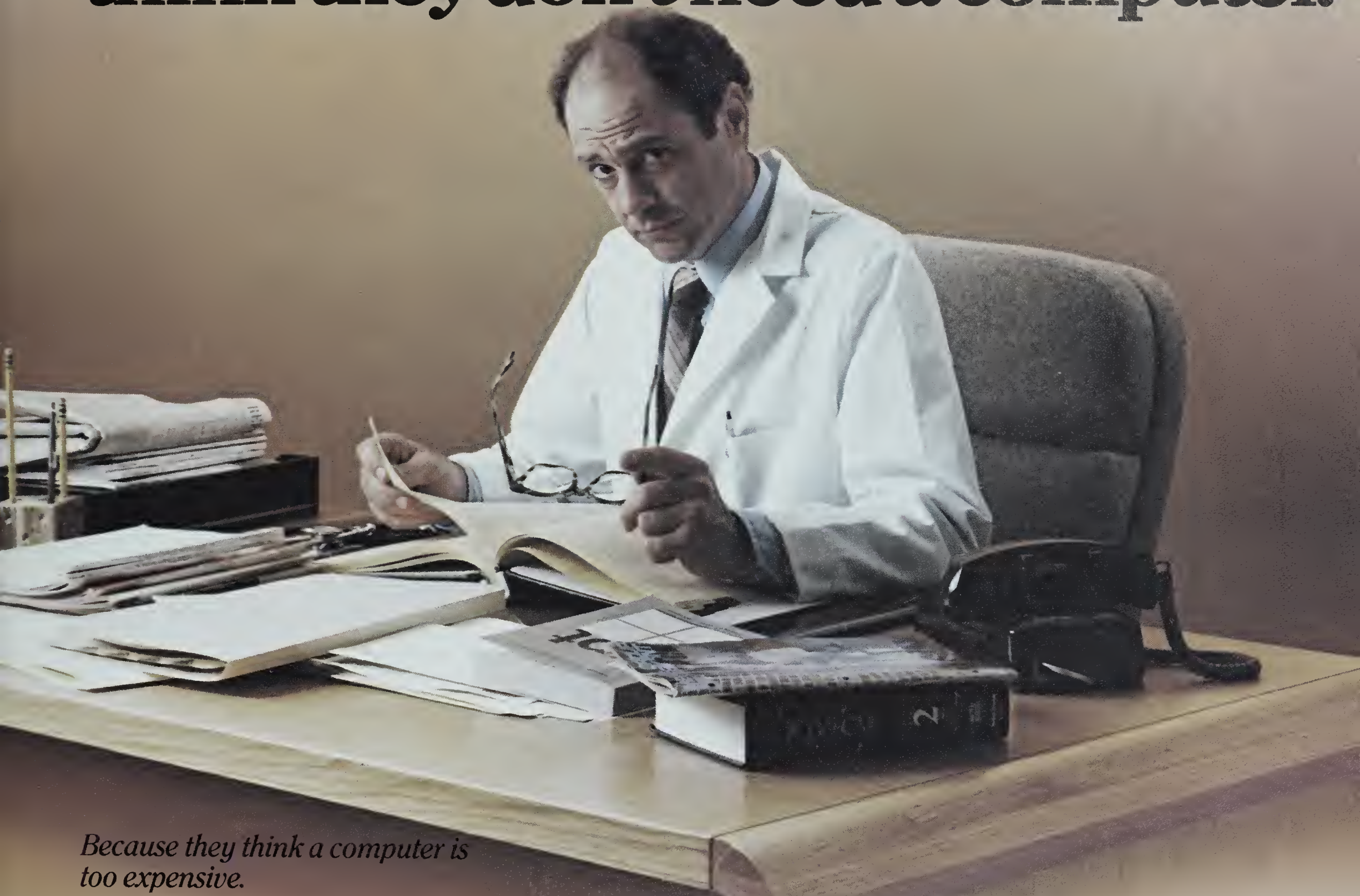
In addition to Dr. Hamrick, the other physicians so far appointed are Doctors E. Gaylon McCollough, William B. Hanson, Dewey White, Robert Parker and Leon V. McVay, Jr. At the time of this writing, the Speaker had not made his second appointment.

In short, the Commission is a viable regulatory agency designed to meet the requisites of current law and the needs of the public and the profession.



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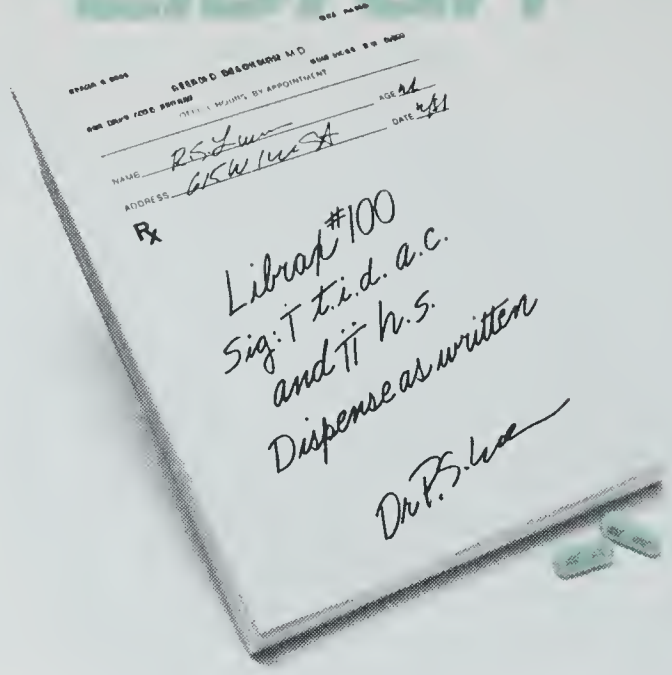
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Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows.

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Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy*: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

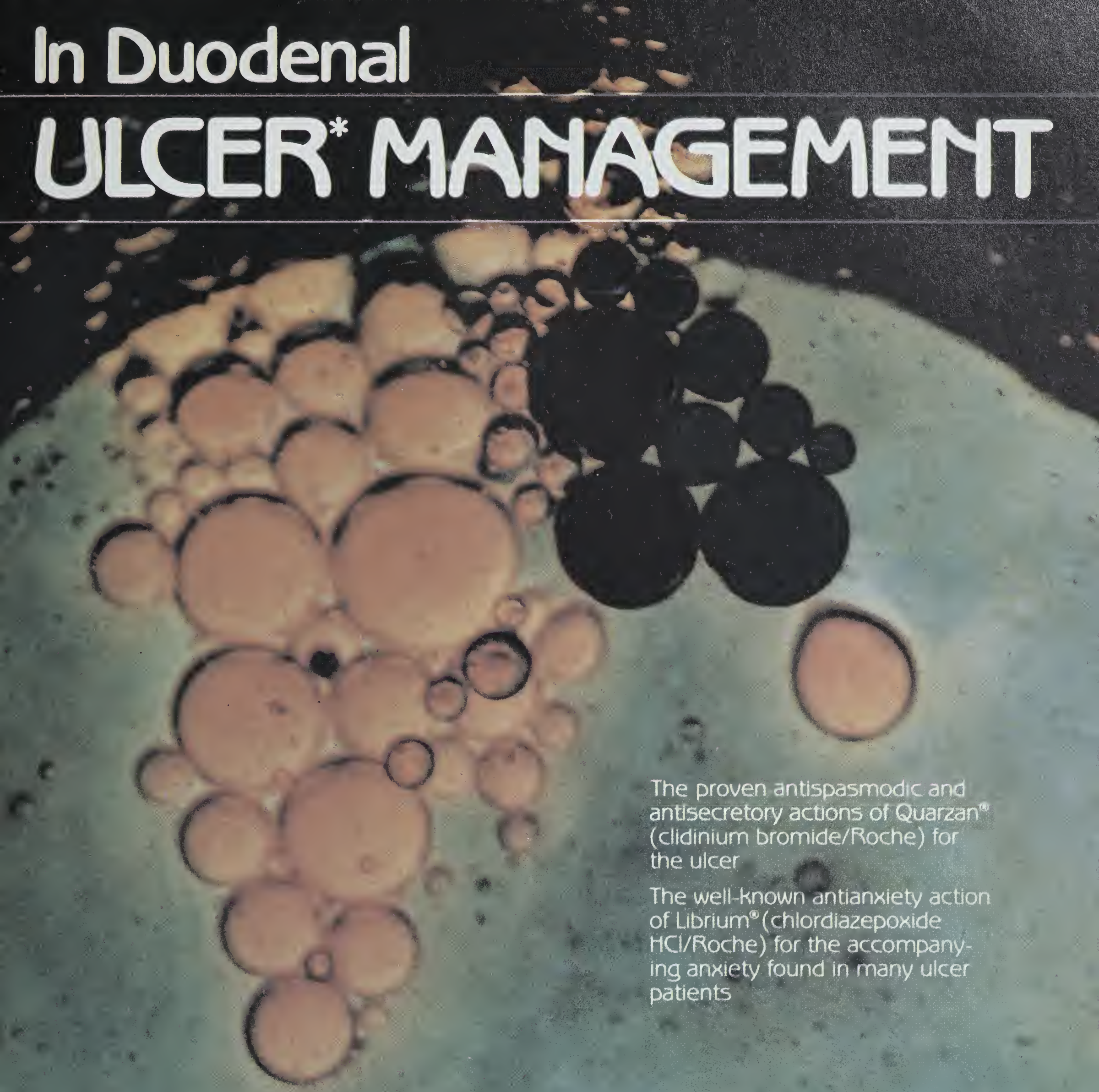
As with all anticholinergics, inhibition of lactation may occur

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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Photograph of simulated gastric hypersecretion

Although weight loss achieved in a weight control program varies from patient to patient, this simulated sequence of a professional model illustrates dramatically the benefits of a successful weight loss program.

40 35 30 25 20 15

getting there...

...takes dietary restriction, regular exercise, behavior modification, and sometimes the addition of an effective anorectic.

prescribe

Tenuate® Dospan® C IV

(diethylpropion hydrochloride NF)

75 mg. controlled-release tablets

the #1 prescribed anorectic

An effective short-term adjunct in an indicated weight loss program

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation." [2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

Tenuate–it makes sense. And it's responsible medicine.

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Tenuate® C IV
(diethylpropion hydrochloride NF)

Tenuate Dospan® C IV
(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

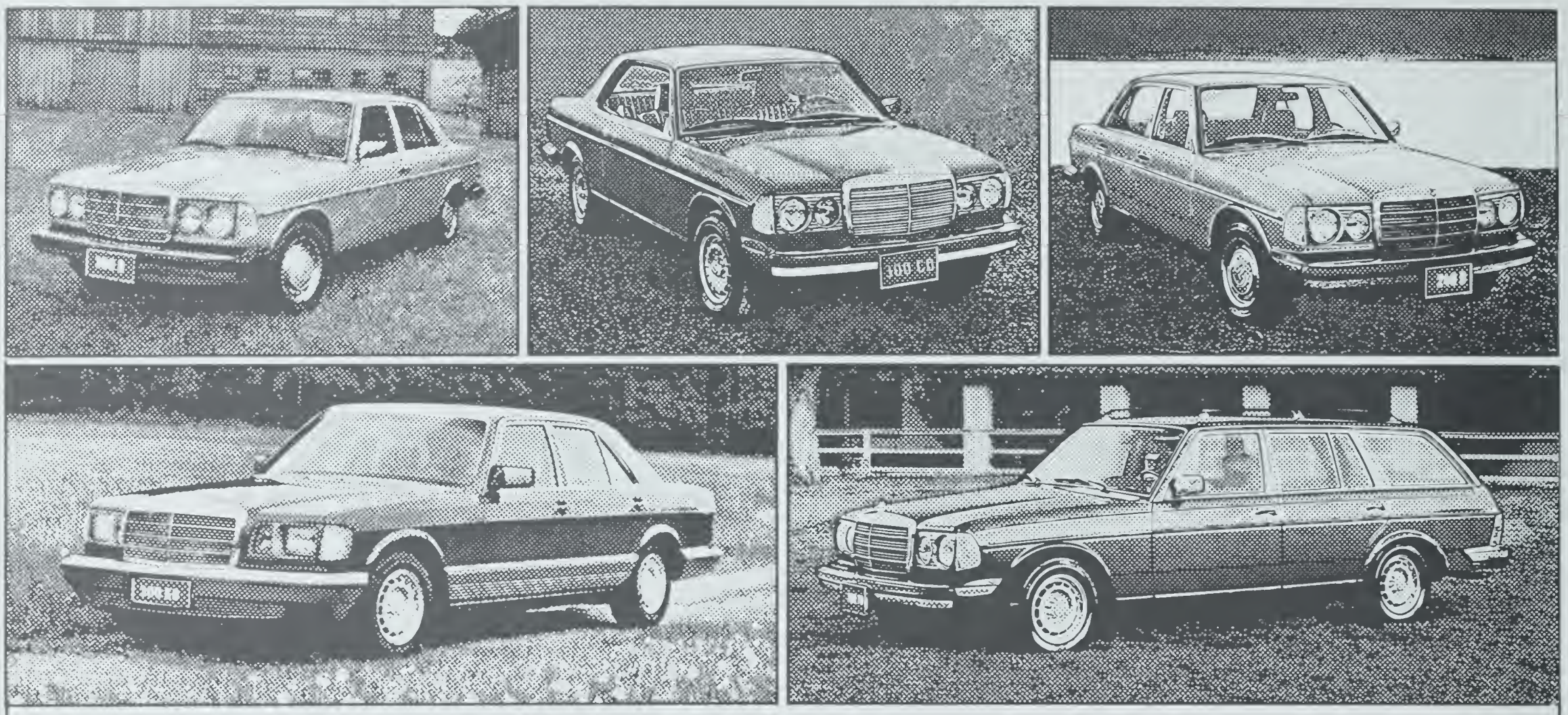
OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of January, 1980

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PRESIDENT'S PAGE



J. Kendall Black, Jr., M. D.
President

Reviewing MASA'S Goals

The subject of the role and activities of the Association is not a new one to any member of the organization. Much has been cussed and discussed regarding our conduct over the years. This is as it should be. Every viable organization should regularly and critically take a hard look at itself. It should review its reasons for existence, the things it is doing to justify its existence and whether those things are of value.

Our record of past service and achievement is not enough to guarantee future success for we live in a new and rapidly changing environment. These next few years offer organized medicine the greatest challenges and the greatest opportunities we have seen in years. We must seek to improve the health care of the American people as we promote the practice of medicine. Yet at the same time our programs must be consistent with the ethical values by which our profession and we as its practitioners are governed.

It is with a view toward these goals as well as an effort to increase the individual member's participation that I am pleased to announce the formation of the following ad hoc committees of your Association:

I. Committee to Review the Objectives of the Association—In light of the recent adoption of new Principles of medical ethics, I believe it is only logical to consider our general objectives. Those objectives are not carved in stone but are living words—subject to change and re-interpretation in light of changing realities: social, political and professional.

II. Long Range Planning and Development Committee—This will be the fun committee. Their charge will be to explore all possible ideas for this Association. There will be no sacred cows or incontravertible positions. Any thought for service, representation, education, legislation, staffing or program will be considered.

III. Committee on Membership—Recent annual sessions have approved the establishment of a Resident Physicians Section and a Medical Student Section. These young people, along with other newly licensed physicians, represent potential members and future leaders of the Association. I believe it is our obligation to seek them out, inform them of the Association and recruit them as members. We are prepared to listen; let's let them join and speak out.

IV. Building Committee—The Board of Censors at a recent meeting determined that our Association should prepare to stay and expand at our present location. With this in mind the Building Committee will be asked to explore all avenues of possible building expansion and modification.

I am sure it is obvious by now that many of the activities of these committees will overlap. This is as it should be. The lives of all physicians in this state are inevitably intertwined. Our goals and needs are for the most part inseparable.

By having these committees with a broad base of members and by having them report to the Subcommittee on Association Affairs, your Board, as well as your Officers, will be better prepared to serve your needs.

Indulge me in my dreams for these committees, serve for me on their rosters and, above all, help your Association to retain its position of leadership of the physicians of the State of Alabama.



Out-Patient Treatment of the Pediatric Asthmatic Patient

Mary Pat B. Hemstreet, M. D.*

Asthma may be defined as intermittent reversible small and large airway obstruction. In the past several years many new drugs have become available for the treatment of the asthmatic patient. The following suggestions will permit a logical approach to the management of children who have recurrent attacks of bronchospasm.

Initial Assessment

The pediatric patient who presents with his/her first attack of bronchospasm, and who responds readily to aqueous adrenalin, need not be immediately skin tested or referred to an allergist. A "wait and watch" approach may be adopted. This consists of continuous bronchodilator therapy for 7 to 10 days after the acute attack, a telephone call to the patient or follow-up visit several days after the initial attack, the prescription of a bronchodilator medication to be used if additional episodes of wheezing occur and a follow up visit in approximately 3 to 4 months. If the child has had no more attacks of bronchospasm since the initial episode, then another several month period of observation should be undertaken. On the other hand, if at the time of the four month visit, it is apparent that the child has continued to have recurrent bouts of bronchospasm, a more aggressive course of action is indicated.

This should consist of:

1. The obtaining of a detailed personal, family and environmental history,

2. The performance of a sweat chloride, serum immunoglobulin, and barium swallow studies to rule out other pulmonary disease states if indicated by the patient's age and clinical course.

3. The performance of a CBC, nasal smear for eosinophils, serum IgE, chest x-ray and some form of basic pulmonary function testing. (The use of the inexpensive Wright Mini Peak Flow Meter is adequate for office use.)[1]

4. Referral to an allergist for evaluation and skin testing. The purpose of skin testing should be:

a) to identify those allergens causative of the patient's difficulties so that "logical avoidance" can be practiced,

b) to more accurately assess and predict the patient's sensitivity so that medication can be given prophylactically and in anticipation before severe airway symptoms develop,

c) to determine if the patient is a candidate for allergy injections (immunotherapy).

A step-wise logical approach to the management of the patient with bronchospasm is depicted in Figure 1.

Avoidance

Avoidance is the most "common sense" approach to allergy and it is this principle which is the essence of environmental control. For the patient who has seasonal symptoms, an air-conditioned environment is beneficial. The filter of the air conditioner will keep out the pollen grains (10 to 100μ) but will not adequately filter out all the dust particles and mold spores. For the patient who has sensitivity to dust and mold, counseling with regard to the "dust producers" and the "dust catchers" will prove helpful. While emphasis is placed on the patient's bedroom, the same basic avoidance principles should be applied to the den or living room where the patient may also spend a significant amount of time. There are presently many commercially available print-outs with regard to "dust-proofing" the patient's bedroom. Most have basic directives which can be followed without making everyone's life intolerable.

1. Cover the mattress and pillows as these may be a source of dust and mites (a major antigenic component of dust) as well as mold spores.

2. Use bed covers and draperies that can be laundered frequently.

3. Remove the rug from the bedroom, if this is possible. Vacuum the rug at least two times weekly. Rugs can be not only a source of dust but also mold spores.

4. Damp dust the room twice weekly.

5. Remove stuffed animals, books, boxes, etc. which are not being used and are dust collectors.

6. Animals should not be allowed in the bedrooms.

7. Change filters in the heating and air-conditioning system every 4 to 6 weeks.

8. Turn off heat in the bedroom or cover the vent with a cheesecloth that can be changed or laundered weekly.

*Associate Professor Pediatrics, University of Alabama in Birmingham, Director, Pediatric Allergy Service, The Children's Hospital, Birmingham, Alabama.

(Continued on Page 14)

Eliminate pinworm without

Stain

- Unlike Povan†(pyrvinium pamoate), VERMOX® is not a dye; it will not stain underwear, bed linen, toilet bowls.
- Just one VERMOX® tablet eliminates pinworm, regardless of age†† and weight, unlike other products which require large dosages for adults.
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Contraindications VERMOX is contraindicated in pregnant women (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.
Precautions PREGNANCY: VERMOX has shown embryotoxic and teratogenic activity in pregnant rats at single oral doses as low as 10 mg/kg. Since VERMOX may have a risk of producing fetal damage if administered during pregnancy, it is contraindicated in pregnant women.
PEDIATRIC USE: The drug has not been extensively studied in children under two years; therefore, in the treatment of children under two years the relative benefit/risk should be considered.
Adverse Reactions Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.
Dosage and Administration The VERMOX tablet may be chewed, swallowed or crushed and mixed with food. For control of pinworm (enterobiasis) a single tablet is administered orally, one time. If patient is not cured three weeks after treatment, a second course of treatment is advised.

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†† Because VERMOX has not been extensively studied in children under two years of age, the relative benefit/risk should be considered before treating these children. VERMOX is contraindicated in pregnant women (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

Eliminates pinworm . . . without stain

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The cost/benefit ratio of the electrostatic air filter or the HEPA filter, which trap particles down to the 0.1μ range, is unsettled but may be helpful for individual patients. The HEPA filter does not produce ozone and may be more efficient on a long-term basis.

Animals should not be in the household if the patient demonstrates positive skin tests and sensitivity to the animal. In the absence of positive skin tests or clinical sensitivity, animals may remain in the house but should not be allowed in the patient's bedroom. Usually animals which remain out of doors most of the time pose no problems. It is to be noted that removal of the animals from the environment for a week "to see if the patient will do better" is no valid assessment of the patient's sensitivity since the animal antigen remains in the household in the form of dander, dried saliva and hair present in the furniture, rugs, etc. The complete removal of these is an awesome task.

Avoidance alone may not fully control the young asthmatic's symptoms. Hence, additional medical modalities may need to be employed. These are discussed next, in order in which they may be utilized, depending upon the severity of the patient's bronchospasm. (Figure I) *Theophylline:* Theophylline preparations are the cornerstone of bronchodilator therapy in the pediatric asthmatic patient. These may be used intermittently for acute attacks or on a continuous basis. Both short and slow-release forms of theophylline are available. (Table 1) Even for the "occasional wheezer", the slow-release forms of theophylline appear more practical, since they need to be taken only 8 to 12 hours, depending on the preparation. A suggested approach when used for intermittent bronchospasm is that the patient take the long-acting form of theophylline plus a sympathomimetic (either oral or by metered inhaler) initially followed by several days of continuous theophylline therapy. While the patient may clinically be "wheeze-free", pulmonary functions may not return to the normal baseline for several days after an acute attack of bronchospasm.

The suggested dose for theophylline is 16-24 mg/kg/24 hrs (not to exceed 900 mg/day without monitoring theophylline blood levels) in an effort to achieve therapeutic blood levels of 10-20 ugms/ml.[2] The slow-release pills cannot be "chewed" as this destroys the slow release phenomenon. Therefore, for the young pediatric patient, it is suggested that Slo-phyllin Gyrocaps or Theo-vent capsules be opened up and the granules put in pudding, applesauce, etc. Caution needs to be exercised whenever theophylline is utilized, but especially in children who are less than 4 years of age. Spot theophylline levels need to be obtained in order to avoid toxicity. It is to be remembered that the concomitant use of erythromycin delays theophylline clearance and that phenobarbital enhances it.

Patients who wheeze two to three times a week would be better controlled on daily theophylline in the form of a

MANAGEMENT OF ASTHMA



TABLE I. THEOPHYLLINE PREPARATIONS

Short Acting+		**Slow-Release***	
Slo-Phyllin Tablets	100,200 mg/tab	Theo-Dur	100, 200, 300 mg/tab
Quibron Capsules	150, 300 mg/cap	Quibron Sr	300 mg/tab
Somophyllin A Liquid	90 mg/5 cc	Labid	250 mg/tab
Somophyllin T. Capsules	100, 200, 250 mg/cap	Theo-Vent†	125, 250 mg/tab
		Slo-Phyllin Gyrocaps†	60, 125, 250 mg/cap
		Somophyllin-CRT	100, 250 mg/cap

+ Given every 6 hours
* Given every 8 to 12 hours, depending on preparation
† Capsule may be opened and contents sprinkled on applesauce, etc.

sustained release preparation such as Theo-Dur. Spot theophylline levels need to be obtained 4 hours after a dose and after the patient has had at least 3 doses of the medication in order to assess whether therapeutic theophylline levels have been achieved and to avoid theophylline toxicity which is usually manifested by nausea, vomiting and headache.

Immunotherapy: Only those patients with specific skin test sensitivities and/or RAST studies are candidates for allergy injections. However, those patients with a myriad of significant sensitivities often do poorly on injection therapy. Far from a panacea, immunotherapy has a success rate of approximately 60%.[3] The injections may be considered to be a success if, after one year of therapy, the patient has decreased morbidity manifested by less acute attacks, less hospitalizations, the need for less medications, etc. If, after one year of therapy, the patient needs as much medications as before the initiation of therapy, then obviously the injection therapy has not been successful and should be reassessed and perhaps discontinued. In the pediatric age-group, most children need injections for approximately 3 years. Allergy injections may be viewed as an "investment in the future" in an effort to decrease the patient's morbidity.

Cromolyn Sodium: Cromolyn sodium, a derivative of khellin, is an inhaled powder in an inert lactose base which acts by stabilizing the mast cell membrane. Its action is strictly local and prophylactic. Consequently, to be effective, this powder must be taken when the patient is wheeze-free with "whistle-clear airways". It is also imperative for successful use of cromolyn that the patient utilize the cromolyn appropriately and therefore repetitive patient education in this regard is mandatory. This medication has a very definite advantage of a very low risk/benefit ratio and it should be considered for use in the patient who has seasonal asthmatic symptoms, intolerances to theophylline or sympathomimetic preparations, exercise-induced bronchospasm or poor control with theophylline alone. The draw-backs to the cromolyn are that it needs to be taken 3 to 4 times daily and is moderately expensive as well as slightly impractical.

Sympathomimetics: For many years, drug companies have sought that bronchodilator drug which would have maximum benefits with the least amount of side effects. Epinephrone and isoproterenol are effective bronchodilators but short-acting and fraught with systemic effects. The changes in the positioning of the hydroxyl groups on the catecholamine nucleus and lengthening of the side chain have increased the duration of action of these compounds and have made the actions more specific for β_2 receptor action (bronchodilatation) with minimal β_1 effects (cardiac stimulation). Two such compounds which were formulated and are presently available in the United States are terbutaline and metaproterenol. Both of these have a longer duration of action and more β_2 specificity. They appear to act synergistically with theophylline in affecting bronchodilatation.[4] A draw-back to the sympathomimetics is that when taken orally, approximately 20% of the patients will experience hand tremors because of the β_2 receptors in the muscles.[5] Metaproterenol is available in the liquid, tablet, inhalant solution and in metered inhaled forms; terbutaline in tablet and injectable forms. The metaproterenol liquid is pleasant tasting (unlike theophylline preparations) and should be considered in patients who are unable to tolerate the liquid theophylline. The indications for use of sympathomimetics should be in those patients with:

1) exercise-induced bronchospasm,
2) on continuous theophylline therapy, but who have break-through wheezing at night or during exercise,
3) who are intolerant of theophylline.

Care should be taken with those patients given a metered inhaler that they understand its USE and ABUSE! PRN prescriptions for these should NOT be written.

Inhaled Steroids: Beclamethasone is a new inhaled steroid which again has the benefit of local action with-

out systemic absorption, thereby decreasing the likelihood of adrenal suppression.[6] The dosage recommended for the pediatric age-group is 1 to 2 puffs (50 ugms/puff) four times daily. The indications for the use of beclamethasone are:

1. in the steroid-dependent asthmatic in an effort to decrease the need for oral steroids. In these patients it is necessary to taper the oral dosage of steroids slowly while maintaining the patient on beclamethasone. The tapering may take 6 to 9 months, depending on the severity of the patient's asthma and the amount of oral steroids necessary for control. This type of patient may also need an occasional boost of oral steroids when an acute asthma attack occurs.

2. in the patient on maximally tolerated doses of theophylline and sympathomimetic supplement who nevertheless has break-through wheezing. A short course of oral steroids may be needed initially before starting the beclamethasone.

3. in the patient who does well most of the time on oral bronchodilators but who may have seasonal activation which needs control.

At doses of 1600 ugms/day in adults (32 puffs) and at 800 ugms/day in children, adrenal function is reportedly affected.[7] While doses in these ranges may be needed, it is necessary to be mindful of the adrenal suppressive potential. Again, the effectiveness of the inhaled steroid depends upon the child's ability to use it properly. Thus, repeated patient education in this regard is necessary. Children, who are less than 6 years of age, frequently are unable to properly utilize the beclomethasone because of the meter mechanism. Oral candiasis and exacerbations in previously controlled atopic dermatitis and allergic rhinitis have been noted in patients receiving beclomethasone.[6] The first of these appear to be decreased in incidence if the patient rinses his mouth out with water following usage of the beclomethasone. The others are controlled with adequate doses of local steroid therapy and antihistamines.

Oral Steroids: The use of oral steroids is not without hazards. Yet when clinically indicated, short-term tapering doses of prednisone at 1 to 2 mg/kg/day are indicated:

1) when a patient is having repeated break-through wheezing, despite therapeutic theophylline levels and regular sympathomimetic therapy.

2) during the patient's most provocative season (i.e. grass pollination time) if cromolyn sodium is ineffective.

3) if a patient has been well controlled on bronchodilators and beclomethasone and has an acute attack of bronchospasm.

For the occasional patient in whom wheezing is poorly controlled despite adequate theophylline, sympathomimetic, cromolyn sodium and/or beclomethasone therapy, long-term oral steroids may be necessary. Prednisone (or prednisolone) is given as a single AM dose and on every other day basis in an effort to achieve maximum asthmatic control with the least side effects.

Summary

In the past decade, numerous medications have become available for treatment of the asthmatic patient. The purpose of this article is to suggest a rational approach to the use of these medications in the treatment of the pediatric patient with recurrent reversible airway obstruction. The ultimate objective of management of the pediatric asthmatic should be the *judicious* use of the medical therapy for maximum patient benefit.





Two convenient dosage forms: 100 mg (white) and 300 mg (peach) Scored Tablets



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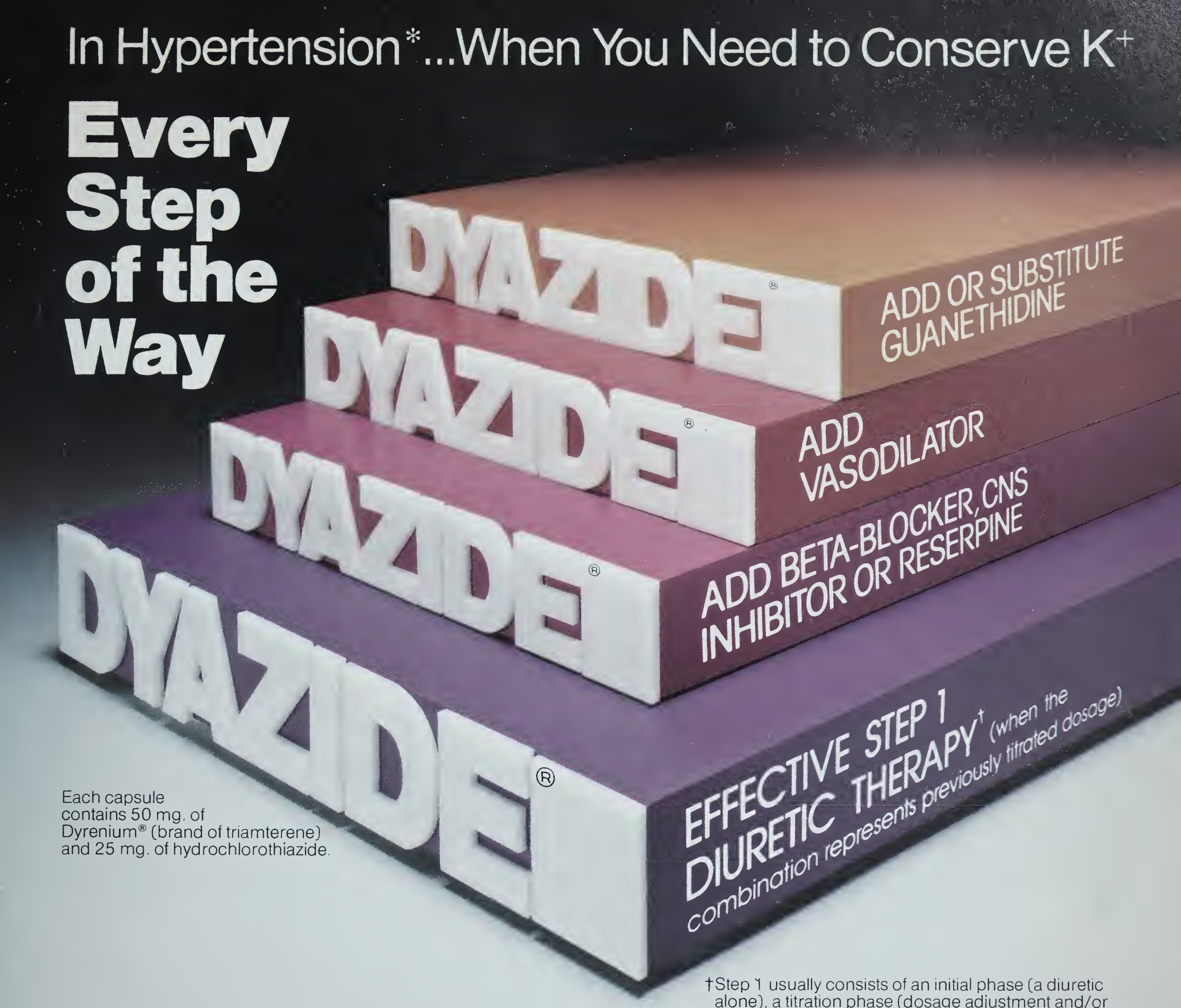
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Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. The following is a brief summary.

* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded; in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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Motrin® vs aspirin w/codeine...
(ibuprofen)

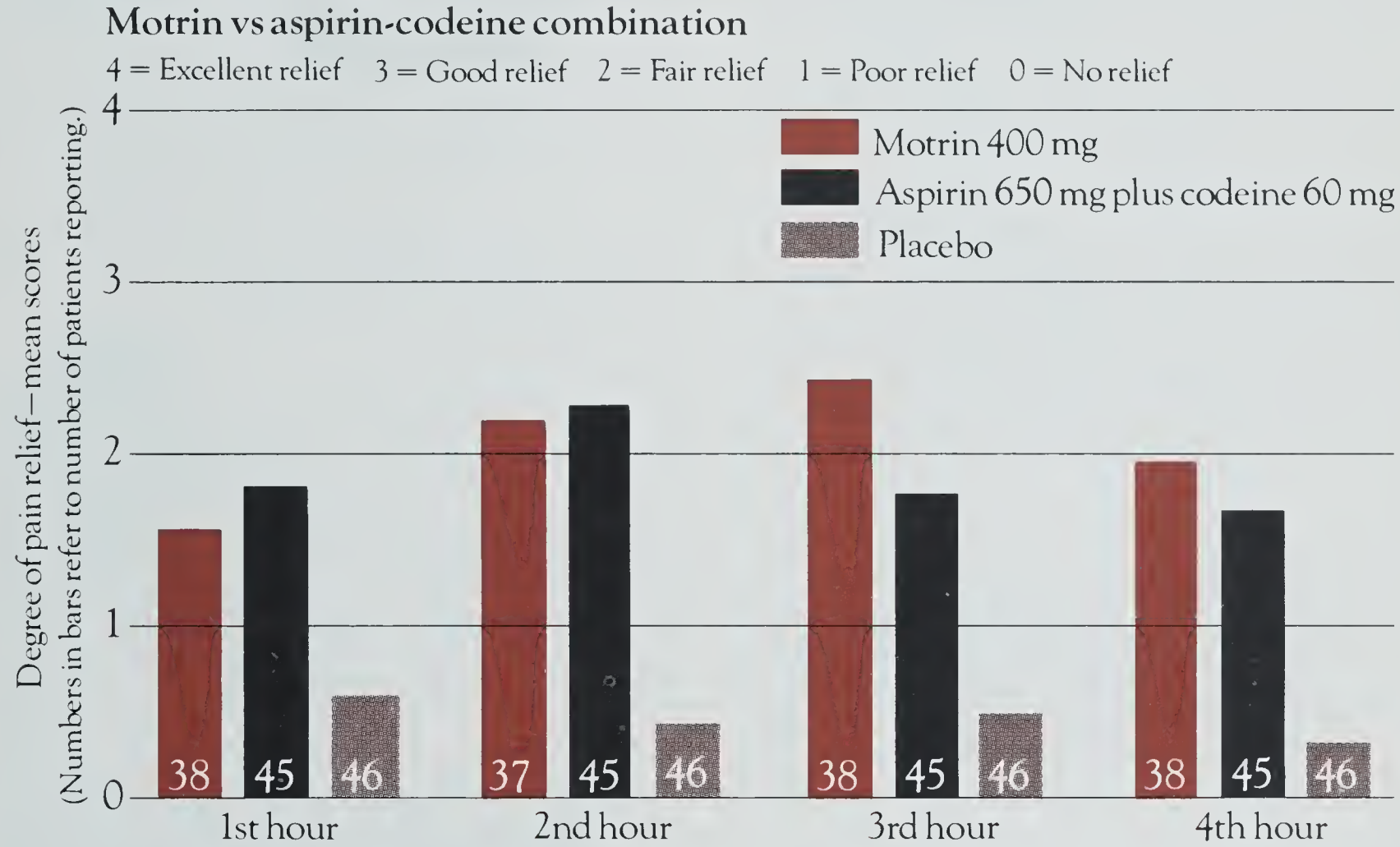


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compare the analgesic effect

A *Motrin* 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients. In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the *Motrin* and aspirin-with-codeine groups... with *Motrin* being significantly more effective ($p = 0.03$) at the three-hour interval. Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief
Motrin vs aspirin-codeine combination



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One tablet q4-6h prn
For relief of mild to moderate pain:

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ibuprofen, Upjohn

• Not a narcotic • Not addictive • Not habit forming • Nonscheduled • Acts peripherally • Relieves pain rapidly • Relieves inflammation • Indicated in acute and chronic pain • Well tolerated (The most common side effect with *Motrin* is mild gastrointestinal disturbance.)

Please turn the page for a brief summary of prescribing information.

Upjohn

Motrin® (ibuprofen) now proved an effective analgesic for mild to moderate pain

Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d.
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MARCH 1981

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Clinical Aspects of Nephrolithiasis

by
John R. Burns, M. D.
Division of Urology
University of Alabama in Birmingham

Over the past ten years, major advances have occurred in the diagnosis and treatment of renal calculi. With current methods for outpatient evaluation, 90% of patients with urolithiasis are found to have a physiologic disturbance predisposing them to stone formation. Improvements in diagnosis have resulted in more specific forms of management. A brief review of known causative factors in urolithiasis is useful in understanding current therapeutic approaches.

In this country, five types of urinary calculi are commonly encountered. These are calcium oxalate, calcium phosphate, magnesium ammonium phosphate (struvite), uric acid, and cystine. In terms of relative frequency, sterile calcium calculi (calcium oxalate and calcium phosphate) comprise 80%, struvite 10%, uric acid 7%, cystine 1%, and all others 2%.

The average urinary calculus is 97½% crystalline and 2½% organic matrix. The role of matrix in stone formation is currently unknown. No good evidence exists to demonstrate that matrix is critical to stone growth. Furthermore, no current methods are available to therapeutically alter the composition or quantity of matrix in urine. For these reasons, attention is usually directed toward the crystalline components of urinary calculi.

Formation of urinary calculi usually depends on the degree of urinary supersaturation. To understand this concept, several terms require definition. A solution is **saturated** with respect to a stone salt if the concentration of the solution is unchanged after it is mixed with the solid stone salt. Any solution with a concentration below this is **undersaturated.** A solution having a concentration greater than the saturation concentration is defined as **supersaturated.** Supersaturation is usually divided into two regions, **metastable supersaturation** and **unstable supersaturation.** In the unstable region, stones will form and grow. In the metastable region, stones will not form but preexisting stones will grow. These terms are important since all current anti-stone therapy attempts to shift urine to lesser degrees of saturation. In theory, by shifting urine to a region of undersaturation, all calculi would dissolve. This can be achieved clinically in treating uric acid and cystine calculi. In vivo dissolution of sterile calcium or struvite calculi is, however, usually impossible.

Urolithiasis is currently considered to be a result of various etiologies. Some of the more important causative factors include:

1. Activity
2. Anatomy
3. Diet
4. Genetics
5. Environment

Any activity which causes relative dehydration can promote stone formation. Such activities include heavy physical labor, vigorous exercise, and activities such as sleeping or long trips in which fluid intake is diminished.

Anatomy can predispose to stone formation in several ways. Any situation in which the transit time of urine is prolonged can result in excessive supersaturation. This occurs in diseases such as neurogenic bladder, bladder diverticulum, benign prostatic hyperplasia, ureteropelvic junction obstruction, or urethral stricture. The effect of anatomic changes on stone disease is also demonstrated in patients with intestinal disease. Patients with ileostomies are prone to develop uric acid calculi by virtue of an acidic pH and dehydration. Intestinal bypass patients may form calcium oxalate calculi secondary to excessive intestinal oxalate absorption and subsequent hyperoxaluria.

Diet Probably First

Diet is probably the most important causative factor in urolithiasis. Urinary calculi are made of the food we ingest. Urinary supersaturation rises for several hours after each meal. Many elements of the normal diet are lithogenic. This is especially true in regard to sterile calcium calculi. Common dietary sources of oxalate include certain vegetables (spinach, beets, greens, asparagus), most berries (including cranberries), grapes, citrus fruits and juices, tea, and chocolate. Intestinal calcium absorption is increased in a variety of ways. Excessive dietary intake of vitamin D (breakfast cereals, health foods, milk products, and multi-vitamins) enhances calcium absorption.

Excessive dietary acid ash, usually in the form of meat protein, strongly enhances intestinal calcium absorp-

tion.[1] Carbohydrates, especially lactose, are highly lithogenic since they enhance intestinal calcium absorption. Milk products are especially high in lactose content. Although stone formers are traditionally instructed to avoid milk and milk products because of high calcium content, the lactose content of milk is probably of greater importance in stone disease.

The above considerations apply primarily to sterile calcium stones. Diet is also important in other types of calculi. A diet high in purines (meat, beer, wine) favors the formation of uric acid calculi. Infected phosphate calculi (struvite) are partially influenced by diet in that foods with high phosphate content (milk, milk products, cola drinks) favor struvite growth.

A variety of genetic disorders are associated with urolithiasis. These include congenital hyperoxaluria (Types 1 and 2), cystinuria and gout. Congenital hyperoxaluria is a rare disorder of oxalate metabolism associated with diffuse nephrocalcinosis and a generally unfavorable prognosis. Cystinuria is a genetic defect producing impaired transport of certain amino acids across the luminal membrane of intestinal and renal tubular epithelium. It is transmitted as an autosomal recessive gene with calculi occurring only in homozygotes.

Calculi form as a result of the relative insolubility of cystine in urine. Gout, a disease of altered purine metabolism, is often associated with uric acid calculi. An estimated 22% of patients with primary gout form uric acid calculi. 49% of patients with gout secondary to myeloproliferative disease will form uric acid calculi. Uric acid calculus formation is better correlated with levels of urinary uric acid than with serum uric acid levels.[2] Uric acid calculi form as a result of the limited solubility of uric acid in acidic urine. The pka of uric acid is 5.5. At pH 5.0, the predominant molecule in aqueous solution is uric acid (solubility in water is 8 mg/100 ml). If, however, the pH is raised to 7.0, solubility increases to 158 mg/100 ml. A typical uric acid stone former presents with both hyperuricosuria and an excessively acid urine.

Environment is important in the etiology of urolithiasis as evidenced by the marked geographical distribution of urolithiasis in the United States. Hot climate predisposes to stone disease by causing relative dehydration. This is demonstrated by the increase in stone occurrence during summer months. In addition to dehydration, areas of greater than average sunshine can cause increased intestinal calcium absorption via enhanced vitamin D synthesis.

Water supply also has a key role in sterile calcium stone formation. Areas having high mineral content in their water supply offer protection from calcium stone disease as compared to regions with soft processed water. This is explained by postulating that the excess calcium in hard water binds intestinal oxalate to form insoluble complexes, thereby reducing oxalate absorption.

(Continued on Page 44)

CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemalytic streptococci
Bronchitis and pneumania caused by *S. pneumaniae* (formerly *D. pneumaniae*)
Otitis media caused by *S. pneumaniae* (formerly *D. pneumaniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
†depending on severity

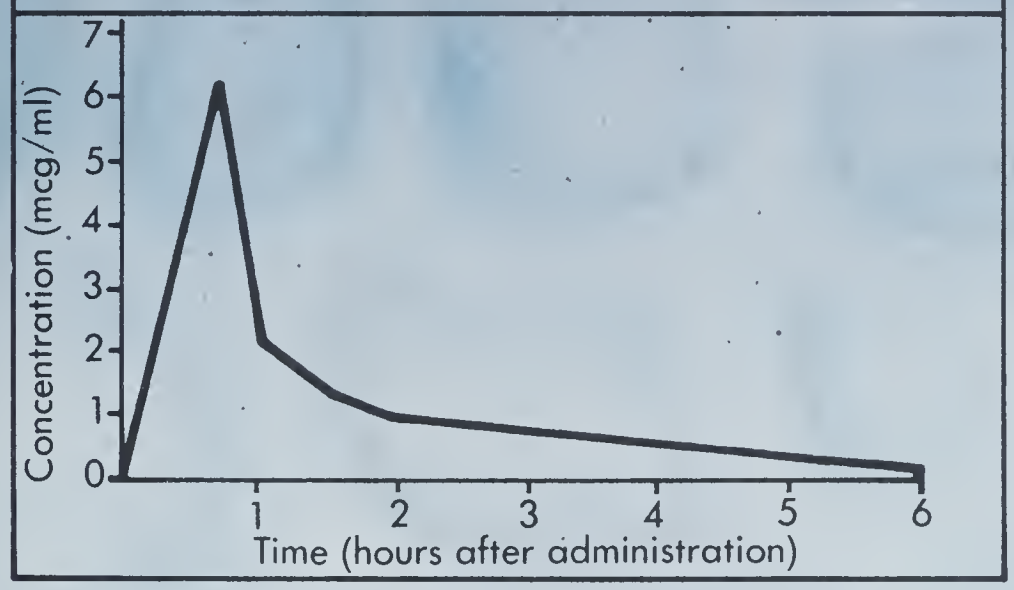
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Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
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- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T^{a} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Wyeth Laboratories · Philadelphia, Pa 19101

Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

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(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

more than just spectrum

NEW NAME

Fiscal Benefits of Poison Control

W. D. King, Pharmacist*
P. A. Palmisano, M. D., M. P. H.†

The Birmingham Children's Hospital Poison Information Center handles over 1,000 calls from the lay and professional public every month. These calls involve a systematic evaluation of poisoning cases as well as treatment recommendations and follow-up calls to insure the safety of the patient. Over 90% of these callers are spared panicky automobile rides to hospitals or other health care facilities because of their communication with the poison information service.

Recently the center conducted a 30 day telephone survey (November 4-December 3, 1980) in an effort to determine the following characteristics of our callers:

1) the rate of repeat ingestion/poisoning (recidivism)
2) which alternative health resource would callers select had the center been inaccessible
3) the type of third party coverage our callers might use for health care expenses

*Assistant Project Director, The Children's Hospital Poison Information Center and Adjunct Professor at Samford University School of Pharmacy, Birmingham, Alabama.
†Medical Director, The Children's Hospital Poison Information Center; Professor of Pediatrics and Associate Dean, the University of Alabama School of Medicine, Birmingham, Alabama.

All callers were asked the three questions and all answers were linked to the caller's individual case form number. The questions were asked during the final follow-up telephone call to the families. The total number of surveyed individuals and other relevant data are indicated in Table 1.

Results

The results of this survey identify three important characteristics of our callers. Thirty-five percent of families surveyed had previously called the center regarding a poisoning incident. This rate of recidivism is higher than previously reported.[1] However, our sampling method undoubtedly is biased toward families which are familiar with our service.

The most common alternative to the poison center was calling the family physician, (52%) although some expressed a concern for the delay in a physician's response through an answering service. Proceeding directly to an emergency room accounted for 119 of 576

(Continued on Page 26)

TABLE 1

Poison Survey Responses
(Number and percent for each item)

A. **Total Surveyed:** 576
B. **Item 1 Results:**
Have you called the poison center before?

1. Yes:	203	(35.5%)
2. No:	373	(64.8%)

C. **Item 2 Results:**
What would you have done if there had been no poison center to call?

1. Go to ER/Hospital	119	(20.7%)
2. Call ER/Hospital	101	(17.5%)
3. Call Physician	300	(52.1%)
4. Call Pharmacist	19	(3.3%)
5. Other	37	(6.4%)

D. **Item 3 Results:**
What type of health insurance do you have?

1. Blue Cross	258	(44.8%)
2. Prudential	20	(3.5%)
3. Aetna	17	(3.0%)
4. Medicaid	18	(3.1%)
5. None	34	(5.9%)
6. Other	229	(39.7%)

TABLE 2

Estimated Dollar Savings**

A. 20.7% of all callers would go to an emergency facility.
$40.00 estimated baseline ER fee
12,500 calls for 1980
(20.7%) (12,500) ($40) = $103,500
B. 52.1% of callers would contact a physician.
(10 minutes/call and $10 estimated cost/hr)*
12,500 calls for 1980
(52.1%) (12,500) ($10) (0.166) = $10,854
C. 20.8% of callers would contact ER or pharmacist.
(10 minutes/call and $10 estimated cost/hr)
12,500 calls for 1980
(20.8%) (12,500) ($10) (0.166) = $4,333

*Some physicians charge as much as $10 for a single telephone consultation.

**Please note the Estimated Dollar Savings is based upon the Poison Center handling 12,500 cases. The actual incidence of poisoning cases in Alabama would exceed 70,000 per year (based on 2% of population). Given appropriate funding to serve this number, the above estimated dollar savings could be magnified 5 to 6 times!

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/Roche)Ⓡ, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® (IV)
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

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Nutley, New Jersey 07110

Poison Control

(Continued from Page 24)

individuals surveyed, which indicated many of these cases would seek immediate direct medical treatment or evaluation. The question arises, how many of these visitations would have been needless. (The poison center, through the year 1980, effectively managed 92% poisoning cases at home.)

The most common health insurance of the callers surveyed was Blue Cross. Those callers surveyed were from different areas of our state and not restricted to one particular locality.

Conclusion

In conclusion, it is apparent many health care dollars would be needlessly spent if the poison center were not available to intercept these callers and provide appropriate information services. There are numerous ways to predict the dollar savings to the people and/or their respective health insurance companies, as previously reported.[2,3] One way to obtain an estimate for our center is outlined in Table 2.

While this survey was not intended as a study in cost/benefit analysis, it does indicate that a significant savings in emergency health care costs is realized through poison information services.

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Patient care is one difficult issue that doctors tackle. Peer review is another.



Blue Cross and Blue Shield salutes the Medical Association of the State of Alabama for its decision to reinstitute peer review. Self-monitoring by members of the medical profession is one of the most effective ways to keep the costs of health care—and the costs of health insurance—under control.

Peer review allows for the examination of fees or services that may be in excess of what is considered usual, reasonable and customary. The final decision as to what constitutes usual, reasonable and customary fees or services is made by the Medical Association's Board of Censors. Extenuating circumstances, such as unexpectedly lengthy surgery, or complications leading to additional procedures, are taken into account. The decision of the board is binding. And in cases where disputed costs are found to be usual, reasonable and customary, Blue Cross and Blue Shield will abide by the board's decision and pay the settled amount.

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Annual Session Views

On the cover is a moment that will enter the archives of MASA—Leon C. Hamrick, M.D., at the lecturn, has just announced his resignation from the Board of Censors and its Chairmanship. After nine years on the Board and six eventful years as its Chairman, Dr. Hamrick resigned before the hushed College of Counsellors and House of Delegates at the annual session in Mobile.

He did so to accept appointment to the newly created State Medical Licensure Commission. Two days after this picture was taken, Dr. Hamrick was elected Chairman of the important new Commission.

Dr. Hamrick stepped down from the podium and from the Board to a prolonged, standing ovation from the assembled Counsellors and Delegates—a spontaneous tribute to his stewardship and personal sacrifice during tumultuous years in the affairs of physicians in Alabama and nationally.

The Hamrick Era, as it might someday be known, was marked by calm, measured responses to even the most volatile issues. Dr. Hamrick's demeanor and his style reflected the man—cool, unflappable, never emotional, low key, fair but firm, conscious of tradition, prudent.

At his right, about to take over, is Carl A. Grote, Jr., M.D., of Huntsville, son of a pioneering county health officer. Dr. Grote, the new Chairman, is another leader who favors understatement rather than overstatement, balanced judgments over pyrotechnics.

On the following pages are a few brief glimpses, providing no more than a flavor, of the 120th Annual Session of the Association, April 1981 in Mobile.



Yes, Uncle Sam Needs You. Today, As Much As Ever.

The U.S. Army Medical Department is experiencing a shortage of physicians in its community hospitals and health clinics.

We are looking for dedicated physicians, physicians who want to be, not salesmen, accountants, and lawyers, but physicians. For such physicians we offer a practice that is practically perfect. In almost no time you experience a spectrum of cases some physicians do not encounter in a lifetime. You work without worrying whether the patient can pay or you will be paid. You prescribe, not the least care, not the most defensive care, but the best care.

A military physician practicing in the Southeast United States is afforded an opportunity for experience and leisure activities unlike nearly any other part of the U.S. If you like hunting, fishing, tennis, water sports, etc., outdoor activities combined with an excellent work environment we may have something for you.

The following is a list of the major Army Community Hospitals, in the Southeast, which have vacancies:

Fort Polk, Leesville, LA

Fort Benning, Columbus, GA

Fort Stewart, Savannah, GA

Redstone Arsenal, Huntsville, AL

Fort McClellan, Anniston, AL

Fort Rucker, Dothan, AL

Fort Jackson, Columbia, SC

Fort Bragg, Fayetteville, NC

Vacancies may vary as physicians arrive and depart but will exist in nearly every speciality at one medical facility or another. To obtain more information and vacancies by speciality please contact the Army Medical Department Personnel Counselor listed below. Be our guest at one of the above medical facilities or any other Army Medical facility.

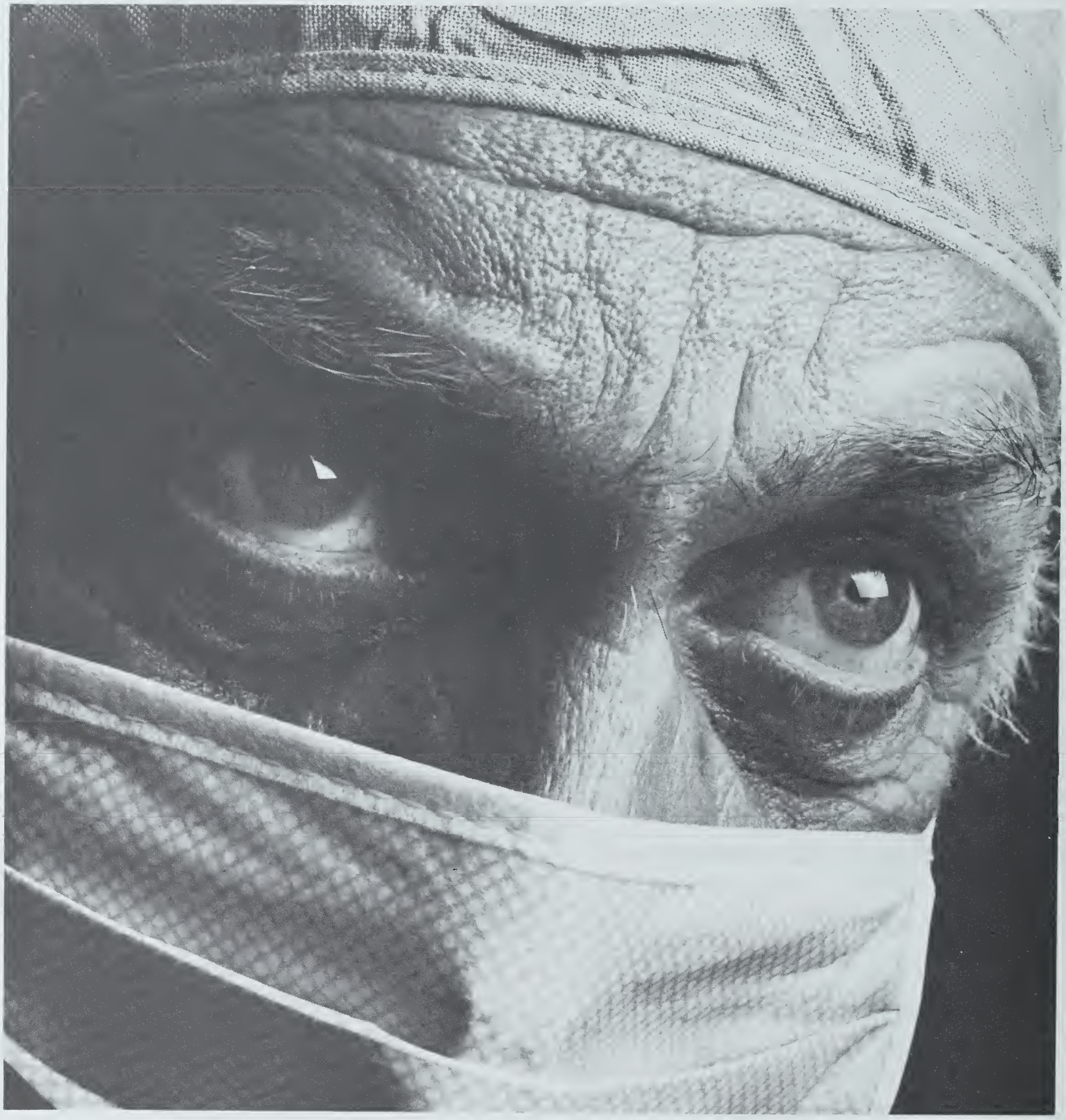
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ARMY MEDICINE, BE ALL YOU CAN BE.



STANDING ROOM ONLY—New members of the Association heard an array of speakers explain the goals, ideals and nuts & bolts workings of organized medicine. In the foreground, front row, are three speakers waiting their turn—Doctors J. Kendall Black, Jr., about to become President; Harrison L. Rogers, Jr., Vice-Speaker of the AMA House of Delegates; and C. A Lightcap, whose term as President was in the waning hours.



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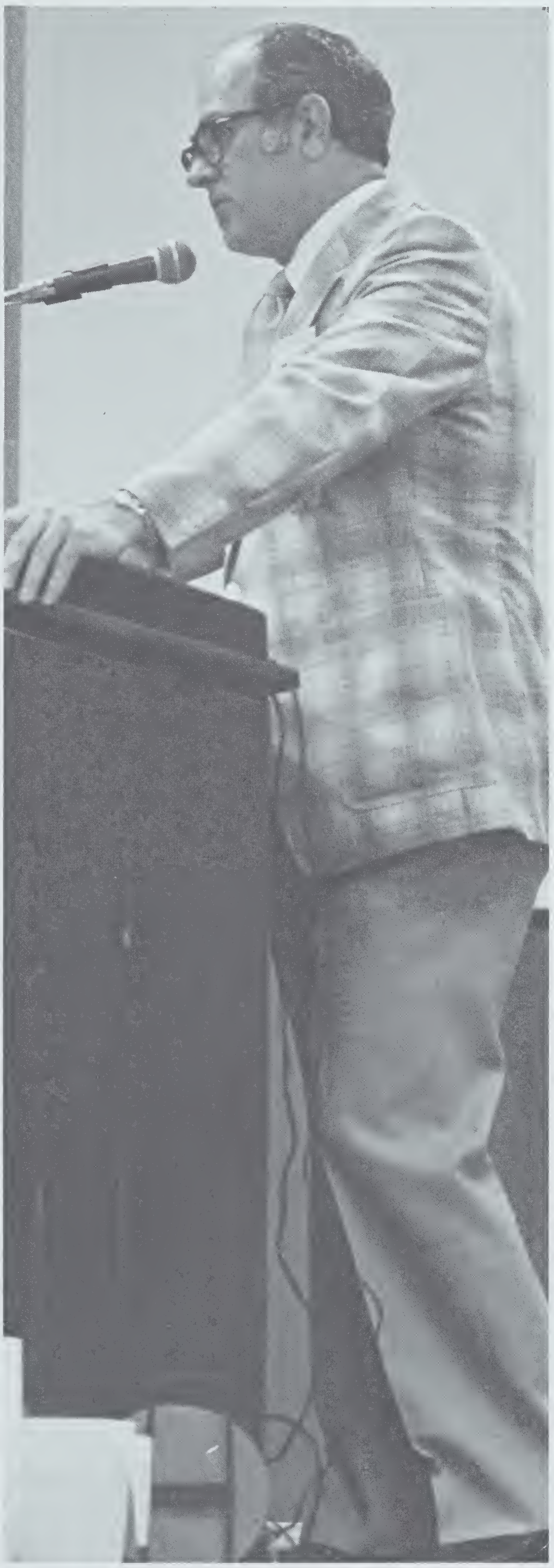
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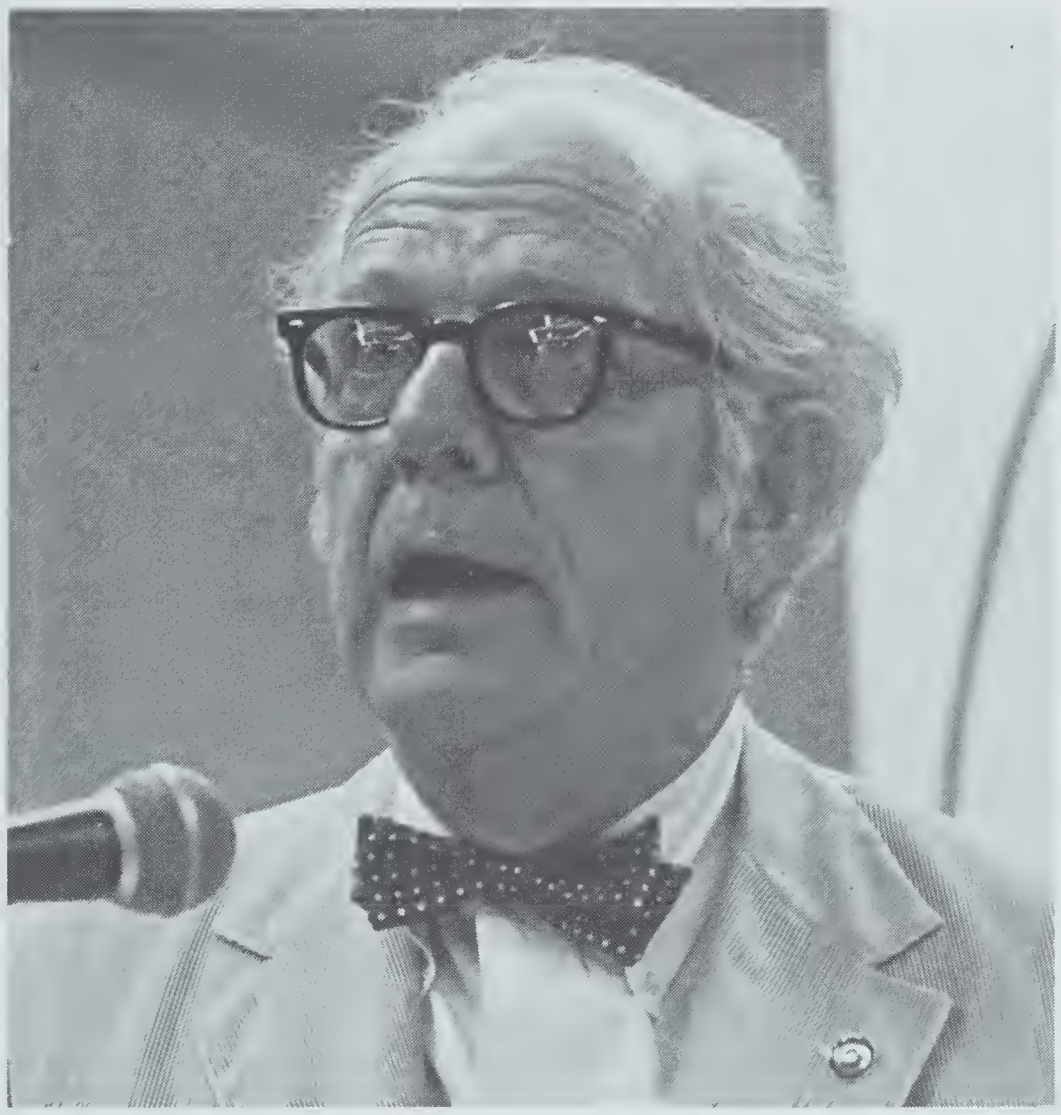
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WE'RE THE SPECIALIST IN THE FIELD.

STANDING TALL—Leon C. Hamrick, M.D., (right) lectures new members on the privileges and responsibilities of MASA membership, its unique niche in history and contemporary affairs of organized medicine. Few knew that this would be Dr. Hamrick's last Orientation appearance as Chairman of the State Board of Censors.





YOU HAVE TIGERS for leaders here in Alabama, new members were told by Harrison L. Rogers, Jr., M.D., (above) Vice-Speaker of the AMA House of Delegates. In no state, Dr. Rogers said, can physicians boast a more aggressive, knowledgeable leadership than in Alabama.



BELLY UP—A. Derrill Crowe, M.D., warns the new members, as he was later to warn the House of Delegates and College of Counsellors, of unknown, shakily funded and thinly managed professional liability insurance companies that might "belly up, leaving you without coverage." Dr. Crowe repeated his advice to consider the company created and controlled by and for Alabama physicians, Mutual Assurance, of which he is President.



GOOD OL' BOY—Former President and new AMA Alternate Delegate William T. Wright, M.D., brought a touch of Will Rogers humor to Orientation with his droll story about the good ol' southern boy's chance encounter with a beautiful lady in a strange motel at nightfall way out West. The refrain, "I don't know you, you don't know me, they don't know us and we don't know them," was applied to new members, MASA, and the history of his own involvement in the Association. The connection was a bit vague, but everyone was laughing too hard to notice.



COUNTY MEDICAL Society Officers Luncheon heard Floyd Smith, South Central Bell executive, speak on industry's concern over the rising cost of health care and the work done by the physician/industry pilot study group in Birmingham.



YOUNG PHYSICIANS Conference, created a year ago at annual session by the work of former President Luther L. Hill, M.D., met at the Sheraton.



MEDICAL ETHICS—Jerome Cochran, Lecturer, James S. Todd, M.D., (right) AMA Trustee and Chairman of the ad Hoc Committee on the Principles of Medical Ethics, explained the new Principles eloquently. He was introduced by Dr. Black, presiding.

SWEARING IN—The oath of office for new officers of the Association, administered by Carl A. Grote, M.D., new Chairman of the Board of Censors, was among the final business of the 1981 annual session.





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Three private psychiatric hospitals in Alabama offer individualized, intensive treatment for emotional disorders.

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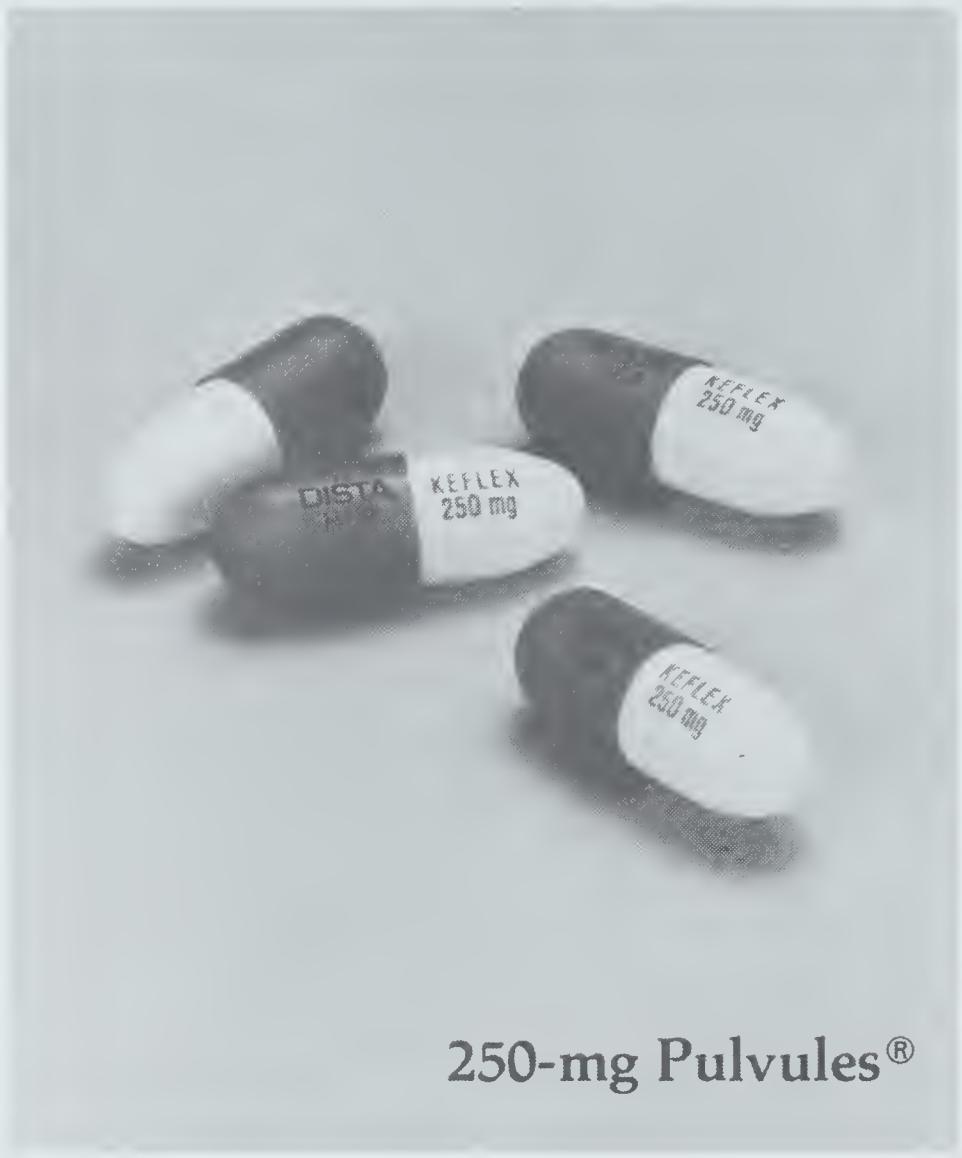
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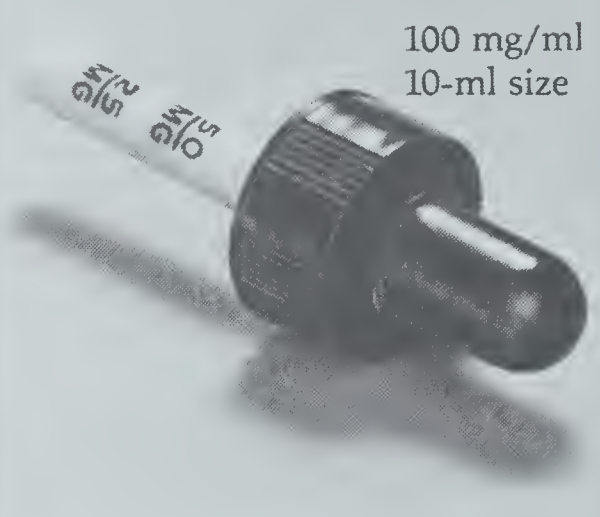
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Immediate Openings in Internal Medicine, Pediatrics, Family Practice and Industrial Medicine. 15 member multispecialty group associated with JCAH approved hospital. Associate partner status first year with guarantee plus percentage. No investment. Contact Karl Hatten, M. D., or H. Dean Andrews, Administrator, Vicksburg Clinic, Vicksburg, Mississippi 39180.

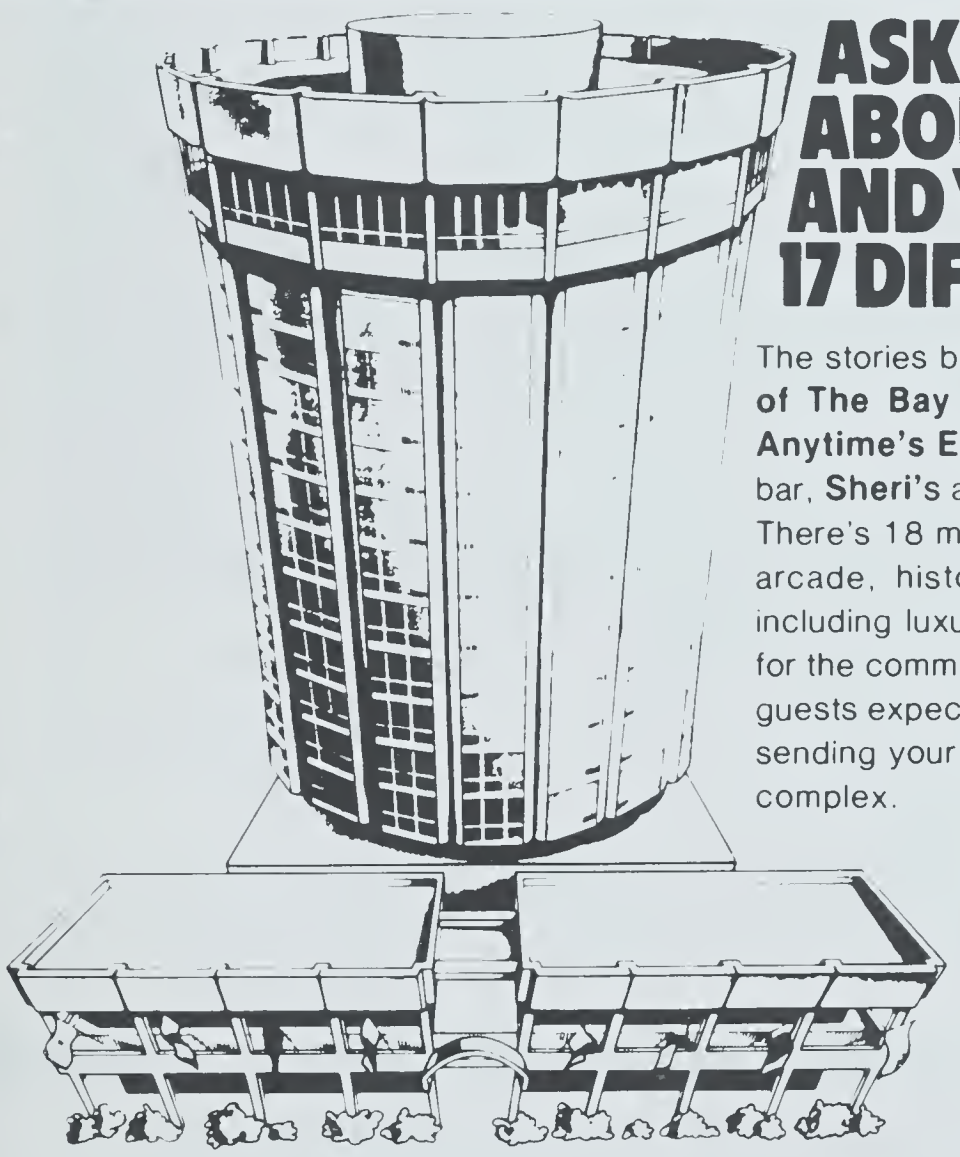
MEDICAL ILLUSTRATOR • Medical journal and textbook illustration • Slide, film, and TV graphics • Exhibit and tridimensional model design • Patient education. Lynn Wyatt, 4637 Avenue U, Birmingham, Alabama 35208, (205) 786-0760.

INTERNIST—board eligible/certified generalist wanted to join established group of 3 Internists and 3 Surgeons. Excellent Southeastern Tennessee location. Starting salary negotiable leading to full corporate participation. Box-A, P. O. Box 1900-C, Montgomery, AL 36197.

STUDENT MEDICINE. Full-time. Need energetic M.D. to join 8 others. Interest in medical problems of young adults. 17,500 students. Excellent fringes, incl. liab. ins., military credit for retirement. Competitive salary. Alabama licensure and BNDD required. Primary care, incl. office trauma and orthopedics with some private practice experience will weigh favorably. Available May 1, 1981. Contact director, Univ. Health Serv., Univ., AL 35486. Ph. 205/348-6262. The University of Alabama is an EQ Opport./Affirmative Action Employer.

BIRMINGHAM: Psychiatrist wanted to spend 10 to 30 hours per week in Birmingham Disability Determination Office, providing Forensic Psychiatric Consultation to professional staff. Training provided with full pay. For details call William Stonecypher, M. D. at 1-800-292-8106; or Birmingham area 933-9300.

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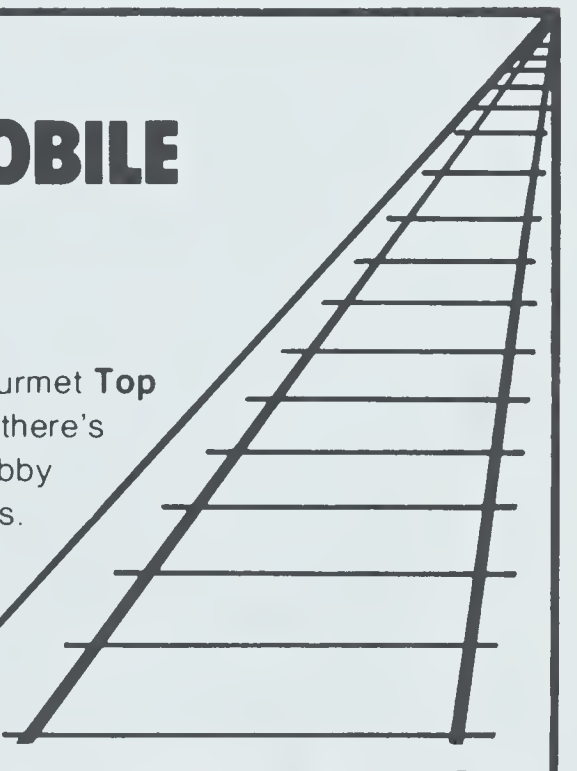


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RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

		Given Tegopen® *(cloxacillin sodium)*	Given *penicillin V-K*
Staphylococcus aureus	(78 patients)	39	39
Returned to clinic at one week		29†	38†
Treatment failure at one week		0	18 (47.4%)
Staphylococcus aureus* and *Streptococcus pyogenes	(9 patients)	4	5
Returned to clinic at one week		4	5
Treatment failure at one week		0	2 (40%)
No initial bacterial growth	(14 patients)	9	5
All 14 healed, regardless of which antibiotic was administered.			
Beta-hemolytic *Streptococcus*	(1 patient)	0	1
TOTALS:	**102 patients**	**52 patients**	**50 patients**

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus,* 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes,* and 1% beta-hemolytic *Streptococcus*.‡
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.
- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

‡The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

TEGOPEN®
(cloxacillin sodium)
–effective therapy for staph infections of the skin and skin structures

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

SUPPLIED:

Capsules—250 mg. in bottles of 100. 500 mg. in bottles of 100.
Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

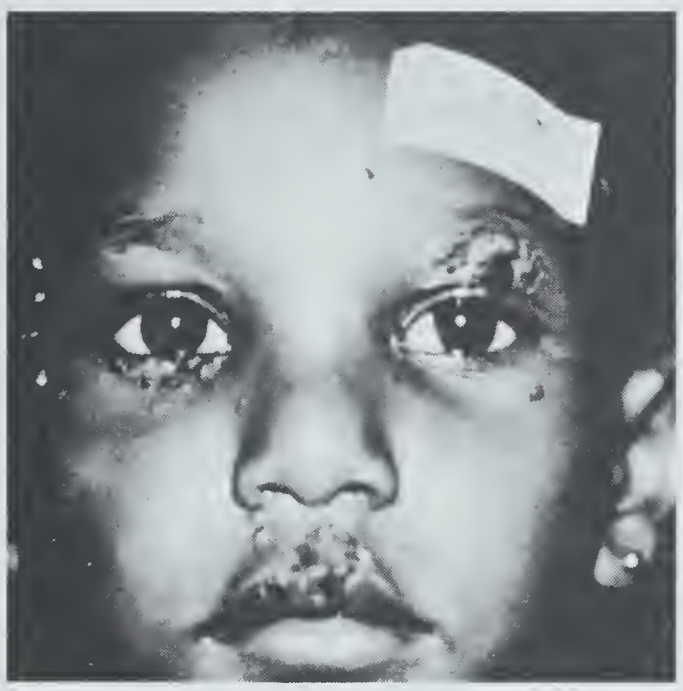
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- **100% cure rate with Tegopen®** (cloxacillin sodium)
- **only a 60% cure rate with penicillin V-K**



As seen on admission



After one week of penicillin V-K therapy



Two weeks after initiation of TEGOPEN therapy

Treatment failure was judged to have occurred when lesions increased in size and/or number during the initial week of treatment with penicillin V-K. *No* treatment failures occurred with Tegopen.

*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

TEGOPEN®
(cloxacillin sodium)
Capsules and Oral Solution

For complete information, consult Official Package Circular. (12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

(Continued from Page 22)

EVALUATION AND MANAGEMENT OF RENAL CALCULI

The evaluation of a patient with renal calculi depends on a number of factors. Any patient with recurrent stone disease requires full evaluation. Patients with cystine, uric acid, and infected phosphate calculi should undergo a complete workup. For a patient with a first episode of sterile calcium lithiasis, the thoroughness of the evaluation depends on age, sex, and race. Children require complete investigation.

Since stone disease is uncommon in blacks, especially females, all attempts should be made to determine an underlying etiology in this group of patients. For a white adult male with a first episode of sterile calcium lithiasis, a serum calcium, electrolytes, creatinine, and urine pH constitute sufficient evaluation. If any of these results are abnormal, further work-up is indicated. Analysis of previously passed calculi is extremely important since proper evaluation is dependent upon stone type.

General Therapy

Regardless of stone type, the most effective method of combating stone disease is through increased fluid intake. The effectiveness of water drinking has been well documented. A daily urine output of 3-4 liters is considered highly desirable. In addition, diet should be regulated in accordance with stone type.

Cystine

Patients with cystine calculi should have a 24 hour urine analyzed for cystine and volume. All consanguineous relatives should be screened for cystinuria with a sodium nitroprusside test. To assure adequate solubility of excreted cystine, at least one liter of urine must be produced for each 300 mg of excreted cystine. Urinary alkalinization is often required to increase solubility. Sodium bicarbonate can be administered in amounts sufficient to raise urinary pH above 7.5. With this degree of alkalinization, one should be alerted for deposition of calcium on preexisting cystine stones. If this occurs, further stone dissolution becomes impossible. If cystine excretion exceeds one gram/day, the patient may require d-Penicillamine (B,B-dimethylcysteine). Penicillamine works by disulfide exchange with cystine in urine, resulting in a compound much more soluble than cystine.

Uric Acid

Patients with pure uric acid calculi should be evaluated with serum electrolytes, calcium, phosphorus, and uric acid. 24 hour urine should be collected for volume, uric acid, and calcium. Uric acid and calcium stone disease frequently co-exist. If stone analysis shows a mixture of these two crystal fractions, or if the serum or urine calcium values are elevated, then the patient should be evaluated as outlined under sterile calcium stones. Therapy for pure uric acid calculi includes limitation of dietary protein to less than 56 grams/day and administration of sufficient alkali to maintain a urine pH of 6.7 - 7.0. Alkali can be given in several forms including sodium bicarbonate tablets, Polycitra, or baking soda. As with cystine calculi, one must watch for calcium encrustations. To reduce urinary uric acid excretion, allopurinol is usually administered in a dosage of 300 mg/day. Preexisting stones, composed solely of uric acid, should eventually dissolve on this regimen.

Sterile Calcium Calculi

Patients with recurrent calcium calculi require a more detailed evaluation. Our current method of evaluation is adopted from Pak, et al[3,4] and consists of three 24 hour urine collections. The first two collections are obtained with the patient ingesting a regular diet while the third urine is collected with the patient adhering to a low calcium-low sodium diet (termed restricted urine). Following the collection of the restricted urine sample, a calcium loading test is performed. This type of evaluation enables approximately 90% of calcium stone formers to be assigned to one of the following categories:

Absorptive hypercalciuria—Type I, Type II
Renal hypercalciuria
Primary hyperparathyroidism
Hyperuricosuric calcium urolithiasis
Enteric hyperoxaluria
Renal tubular acidosis
Unclassified hypercalciuria

Therapy depends upon which of the above categories the patient fits. Primary hyperparathyroidism is treated with surgical exploration of the neck. Renal tubular acidosis responds to the administration of absorbable alkali. In most patients 100-150 mEq of alkali per day suffice. Sodium bicarbonate, potassium bicarbonate, or Polycitra all are equally effective. Enteric hyperoxaluria often occurs in patients who have undergone small bowel bypass surgery for morbid obesity. These patients can be effectively treated by the administration of sufficient oral calcium to titrate urinary oxalate levels to normal. If stone disease persists, the original bypass may require surgical reversal. Patients with absorptive or renal hypercalciuria are usually first managed with general therapeutic measures such as increased fluid intake and dietary adjustments. If these measures prove unsuccessful, thiazides or orthophosphates are administered.

Hydrochlorothiazide decreases urinary calcium and increases urinary magnesium. It may lower urinary oxalate in some patients. Urinary citrate levels are decreased. This is a potentially undesirable effect since citrate is a known inhibitor of calcium stone growth. Adverse effects of thiazides include hypokalemia (often requiring potassium supplements), hyperglycemia and hyperuricemia occasionally precipitating symptomatic

gout. The standard dose of hydrochlorothiazide is 50 mg, taken twice daily. Patients with a preexisting history of diabetes or gout should not be placed on this therapeutic regimen.

Treatment with orthophosphates results in a decrease in urinary calcium and a rise in organic pyrophosphate excretion. Urinary pH usually decreases, thereby increasing calcium oxalate solubility. Urinary supersaturation of calcium oxalate has been reported to drop at least 37% in hypercalciuric calcium oxalate stone formers on orthophosphates.[5] The minimum effective daily dose for men is 1500 mg of phosphorus, given at 8 hour intervals.

Women may require slightly smaller doses. Patients with high rates of recurrence may require a daily dosage of 1750-2250 mg of phosphorus to reduce stone formation.[6] Most patients should initially be started on a neutral phosphate preparation. Alkaline phosphates, although possibly more effective than their neutral counterparts, contain large quantities of sodium which may aggravate fluid retention or hypertension. The major side effect associated with orthophosphate administration is diarrhea. This occurs to some extent in all patients. Patients with a previous history of diarrhea will normally be unable to tolerate the drug. Orthophosphates should also be used with caution in patients with urinary tract infections, since growth of struvite calculi will be accelerated by the ingestion of large amounts of phosphate.

Patients with hyperuricosuric calcium lithiasis should first be placed on dietary management. If their urinary uric acid excretion remains elevated, allopurinol therapy should be instituted. If their stone disease persists, thiazides or phosphates may be added.

Infection Induced Calculi

The role of infection in the formation of renal calculi is usually limited to phosphatic calculi. Infected phosphate calculi usually consist of struvite and carbonate apatite, a type of calcium phosphate. These calculi only form at a pH above 7.0, a value above the normal physiologic range. Only after the introduction of a urease producing urinary infection (most often Proteus) do conditions become favorable for the precipitation of struvite and carbonate apatite. Initial evaluation includes serum chemistries (electrolytes, creatinine, calcium, phosphorus), 24 hour urine collection (volume, calcium, magnesium, phosphorus), and urine culture and sensitivity. A significant percentage of these patients, especially females, have an underlying metabolic abnormality. In such cases, infection usually occurs secondary to metabolic stone disease. These patients, therefore, require detailed evaluation.

Current treatment of infected phosphate calculi involves a combined medical-surgical approach. Since control of infection is impossible while stones remain in contact with the urinary stream, the first step in management involves the surgical removal of all stones. Anatrophic nephrolithotomy under regional hypothermia is often necessary since these calculi are usually large and assume a branched (staghorn) configuration. Intraoperative radiographs are routinely required to locate small stone fragments. Even with the use of intraoperative x-rays, stone fragments are left in greater than 10% of patients. Post-operative irrigation via nephrostomy tube is often helpful in dissolving residual fragments. The selection of an irrigating agent is often a difficult decision. The two most commonly used agents are Renacidin and Urologic G solution. Most clinicians feel Renacidin is a superior agent. However, the use of Renacidin has been marred by case reports of sepsis and death following its use. For this reason, it is banned by the FDA for upper urinary tract irrigation. The above complications, however, most probably resulted from improper patient selection and a failure to carefully monitor the patients while on therapy.[7] In a proper setting, Renacidin can be very effective as an upper tract irrigating agent.

Patients are maintained on appropriate antibiotics preoperatively and for a period of several months postoperatively. If any stone fragments remain postoperatively, urinary phosphorus levels are maintained at less than 300 mg/24 hours either by diet or oral administration of aluminum gel antacids (Basaljel or Amphojel). If these measures are inadequate and stone growth continues, administration of a urease inhibitor should be considered. Acetohydroxamic acid (AHA), a potent inhibitor of bacterial urease, is currently being used at our institution for refractory cases of infected phosphate calculi. It has previously been shown to halt stone growth even in the presence of persistent infection.[8]

In summary, urolithiasis is a disease of various etiologies. Full evaluation is often necessary to determine the underlying disturbance. Although a complete evaluation is often time consuming, it can reduce future mobidity. Therapy for urolithiasis consists of both general measures plus specific therapy based on stone type.

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Acute pain is no laughing matter.

The first prescription for the first days of acute pain

Empirin® c̄ Codeine #3

Each tablet contains: aspirin, 325 mg; plus codeine phosphate, 30 mg, (Warning — may be habit-forming). Ⓒ Ⅲ

For the millions of patients who need the potency of aspirin and codeine for their acute pain.

The pain of fractures, strains, sprains, burns and wounds is at its peak during the first three to four days following trauma. The potent action of Empirin c̄ Codeine begins to work within 15 minutes of oral administration, an important advantage during this acute pain period. Empirin c̄ Codeine has unique bi-level action to attack pain at two critical points: peripherally at the site of injury and centrally at the site of pain awareness.

For the most effective dosage in treating acute pain, begin with . . . two tablets of Empirin c̄ Codeine #2 or #3, every four hours. Titrate downward as pain subsides.

EMPIRIN® with Codeine

DESCRIPTION: Each tablet contains aspirin (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No. 3 — 30 mg, and No. 4 — 60 mg. (Warning — may be habit-forming.) Ⓒ Ⅲ

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies; patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



Mrs. Rufus E. Lee, Jr.
President, A-MASA



Past Progress, Future Plans

You have asked me to be president of the Auxiliary to the Medical Association of the State of Alabama. Thank you.

This honor makes me feel both humble but proud—weak but powerful. Humble and weak because I know that without your help and support I can accomplish little. I feel proud to be a part of such a great organization and powerful because together we have accomplished and can accomplish so much.

Fifty-nine years ago, the Auxiliary to the American Medical Association held their first meeting in St. Louis, Missouri with only 24 women representing 9 states.

Just one year later, here in Mobile, the Women's Auxiliary to the Medical Association of the State of Alabama was organized. Mrs. Seale Harris was our first President. Twenty-three members were present. Jefferson was the first county to organize.

Since then, we have grown tremendously with over 81,000 national members and nearly 2,000 Alabama members. We in Alabama have received national awards for membership increases for the last 16 years and this year we did it again. Thanks to Patty Estock. No other state can claim this.

Alabama has had 4 national presidents—Mrs. Seale Harris, Mrs. William Thuss, Mrs. John Chenault, and Mrs. Ben Johnson. We are proud of these fine, distinguished ladies.

In fact, we are proud of all of our past presidents and the many different projects they have organized and executed with such graciousness.

I would love to begin my year as president with a much used but clever phrase, "It's time for a new beginning," but as I see all our tremendous past presidents' faces and remember all they have done I am very aware just keeping the programs going and trying to add a few is a very large undertaking.

Just for a minute let us review some of our past projects and what they have really meant to us. We have raised some $65,000 for AMA-ERF over the past 2 years through our many fund raising projects such as fashion shows, luncheons, basketball games, auctions, raffles, optics, begging from and selling to everyone we know.

We have worked for and gotten a health education bill passed in Alabama. We have had to fight to keep it because of many threats to abolish it. Thanks to efforts of Mary Carr.

We have tried to promote better health for Alabamians through education, health fairs, screening clinics, and immunization programs.

More recently, we have tried to promote better health through our national theme "Shape Up For Life." Pat Scofield's genius. We have taught better nutrition classes, set up "fun runs", jogging trails in hospital and industrial parking lots.

We have already begun to work on next year's theme "Shape Up For Life Through Mental Fitness." We have worked on this in many areas in the past—drug and alcohol abuse, mental retardation clinics, and worry clinics.

This year in Alabama the Medical Association is very interested in having an active impaired physician program and they have asked our help. What could be closer to our hearts?

In this age with drug abuse and alcohol abuse, teenage pregnancy, budget cutbacks, inflation, etc., what is our role in it all? Where do we as auxilians begin? How do we go about assisting the medical society?

Although we have many programs already going, Dr. Herlihy will give us an insight of this at our post board meeting which follows and I know you will all attend.

Whatever we accomplish this year, we will do through the dedication and concentrated efforts of all the officers, committee chairman, county presidents, and members of this beloved organization.

Today, we live in a challenging world. Never in history has there been a greater need to invest ourselves, our

talents, and our genuine concern for the good and health of our fellowman—to gather together our scattered resources and commit them to a program of making life richer.

We accept the challenge and ask you to dedicate yourselves so that each day all of us may see some progress in the medical advancements and improvements of health.

"*Serving mankind* through auxiliary" is our theme for the year. We all know what "serving" means—its an action word—actively giving of ourselves, giving that which is in our hearts so that the lives of others might be enriched.

"Mankind" is a word that is all inclusive. It pictures all ages from the cradle to the elderly.

I, with you, believe in the auxiliary and I believe in each of you. I am confident that the year ahead is one where we will excel in promoting better health in Alabama.

Mary Julia

Religion In American Life.

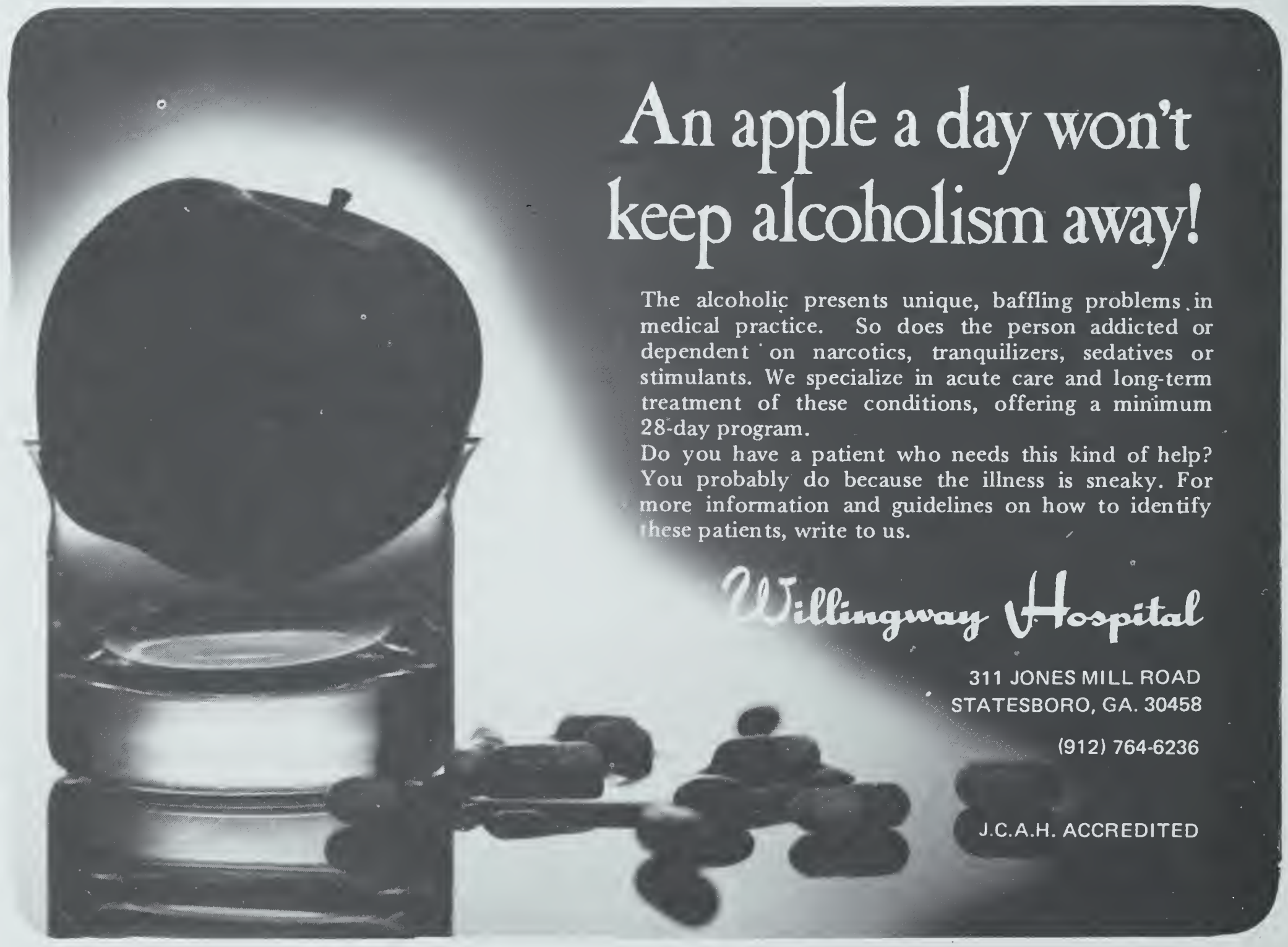
It's our name. It's our belief. It's our goal.

Why should it be yours?

"If business is to function properly, it needs a community where basic values are believed and encouraged. That's religion's job and it needs the support we can give it through an inter-religious organization like Religion In American Life." **William F. May,** Dean
New York University
Graduate School of
Business Administration

If you're interested in finding out more about Religion In American Life, send for a free copy of our Annual Report.

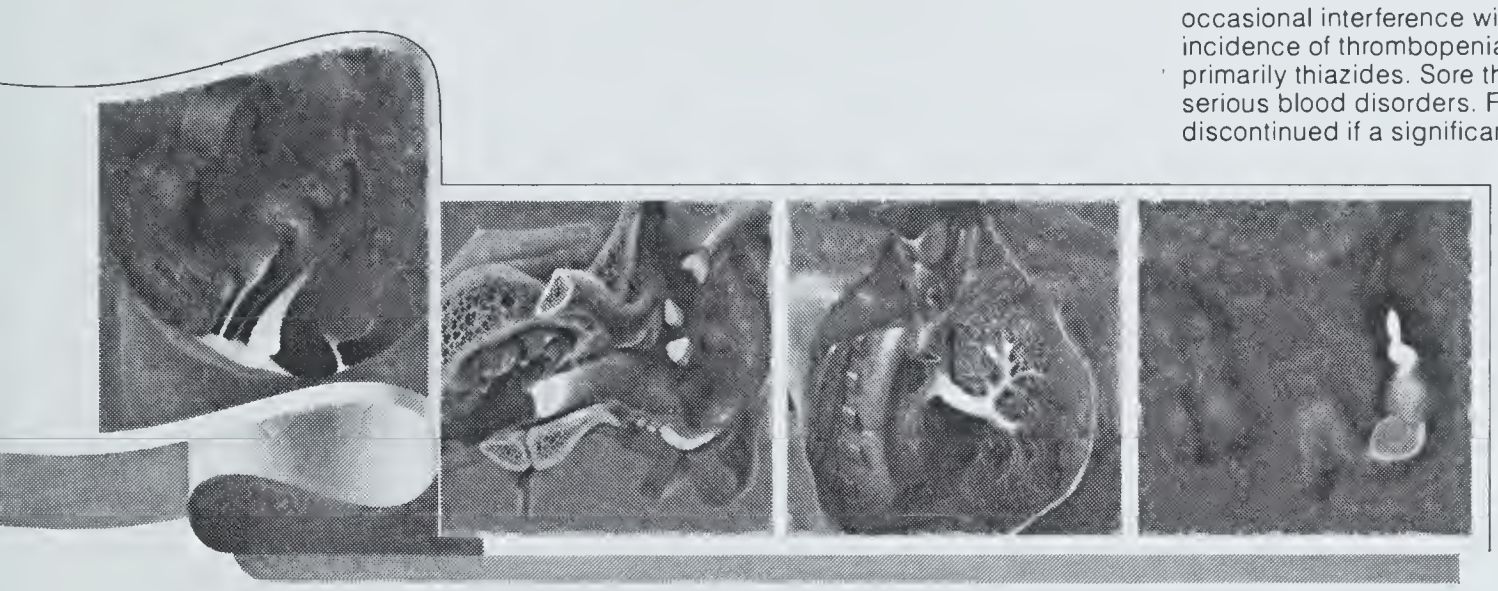
The Annual Report
Religion In American Life
815 Second Avenue, Suite 200
New York, New York 10017



Bactrim™
(trimethoprim and sulfamethoxazole)
succeeds

Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



in recurrent UTI...
a continuing record of high clinical effectiveness against common uropathogens

in acute otitis media in children...
effective against both major otic pathogens...with *b.i.d.* convenience

in acute exacerbations of chronic bronchitis in adults...
clears the sputum and lowers its volume...on *b.i.d.* dosage

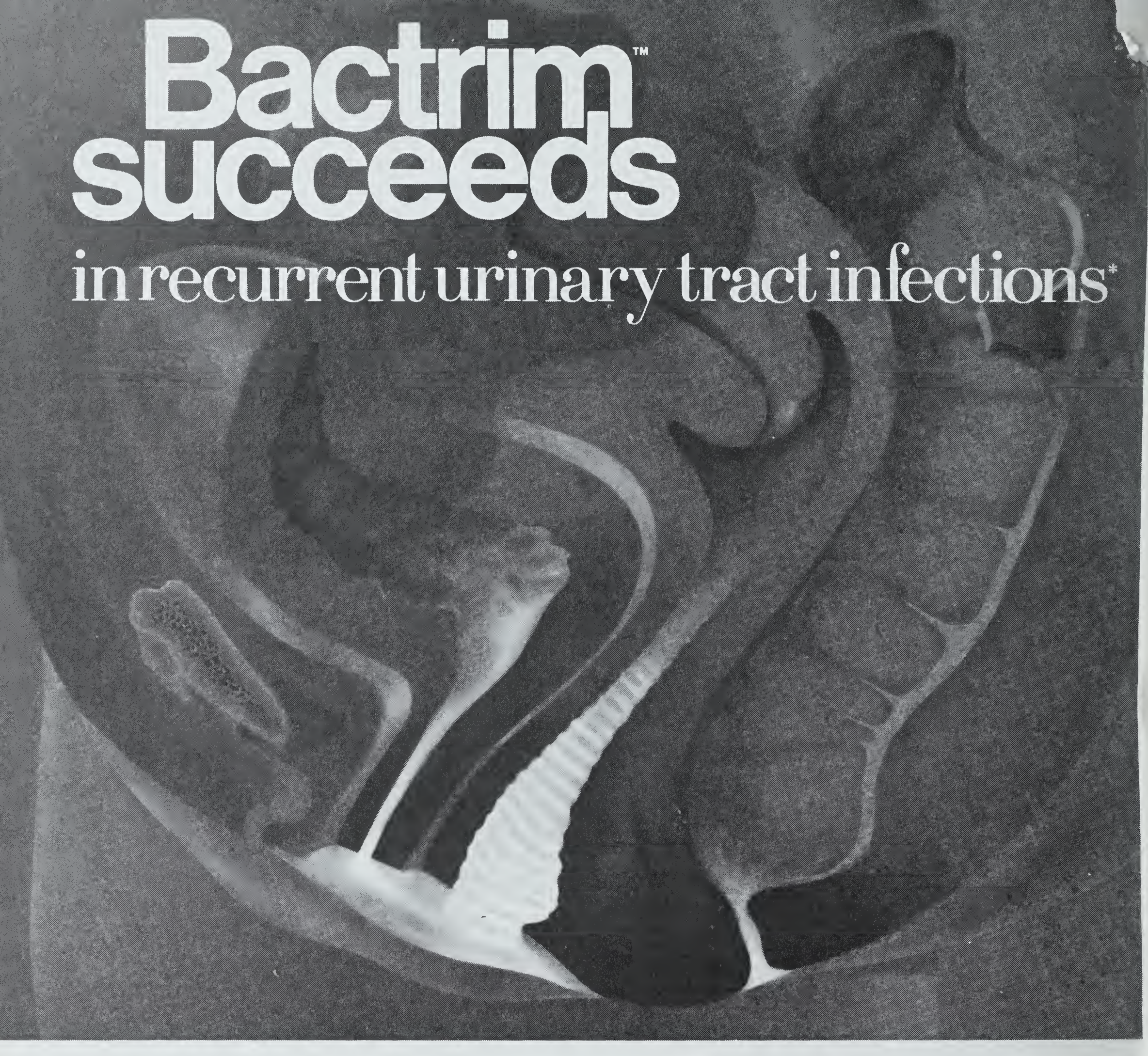
in shigellosis...
faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:
Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.
For acute otitis media in children due to susceptible strains of *Haemophilus Influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae.* To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.
For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.
For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.
Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.
Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.
Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.
Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.
Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.
Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.
Dosage: Not recommended for infants less than two months of age.
URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:
Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.
Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.
For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.
ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:
Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.
PNEUMOCYSTIS CARINII PNEUMONITIS:
Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.
Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Bactrim™ succeeds

in recurrent urinary tract infections*



from site to source

Bactrim continues to demonstrate high clinical effectiveness in recurrent urinary tract infections. Bactrim reaches effective levels in urine, serum, and renal tissue[1]...the trimethoprim component diffuses into vaginal secretions in bactericidal concentrations[1]... and in the fecal flora, Bactrim effectively suppresses Enterobacteriaceae[1,2] with little resulting emergence of resistant organisms.

1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980..**2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

Bactrim™ DS
160 mg trimethoprim and 800 mg sulfamethoxazole
DOUBLE STRENGTH TABLETS

maximizes results with B.I.D. convenience

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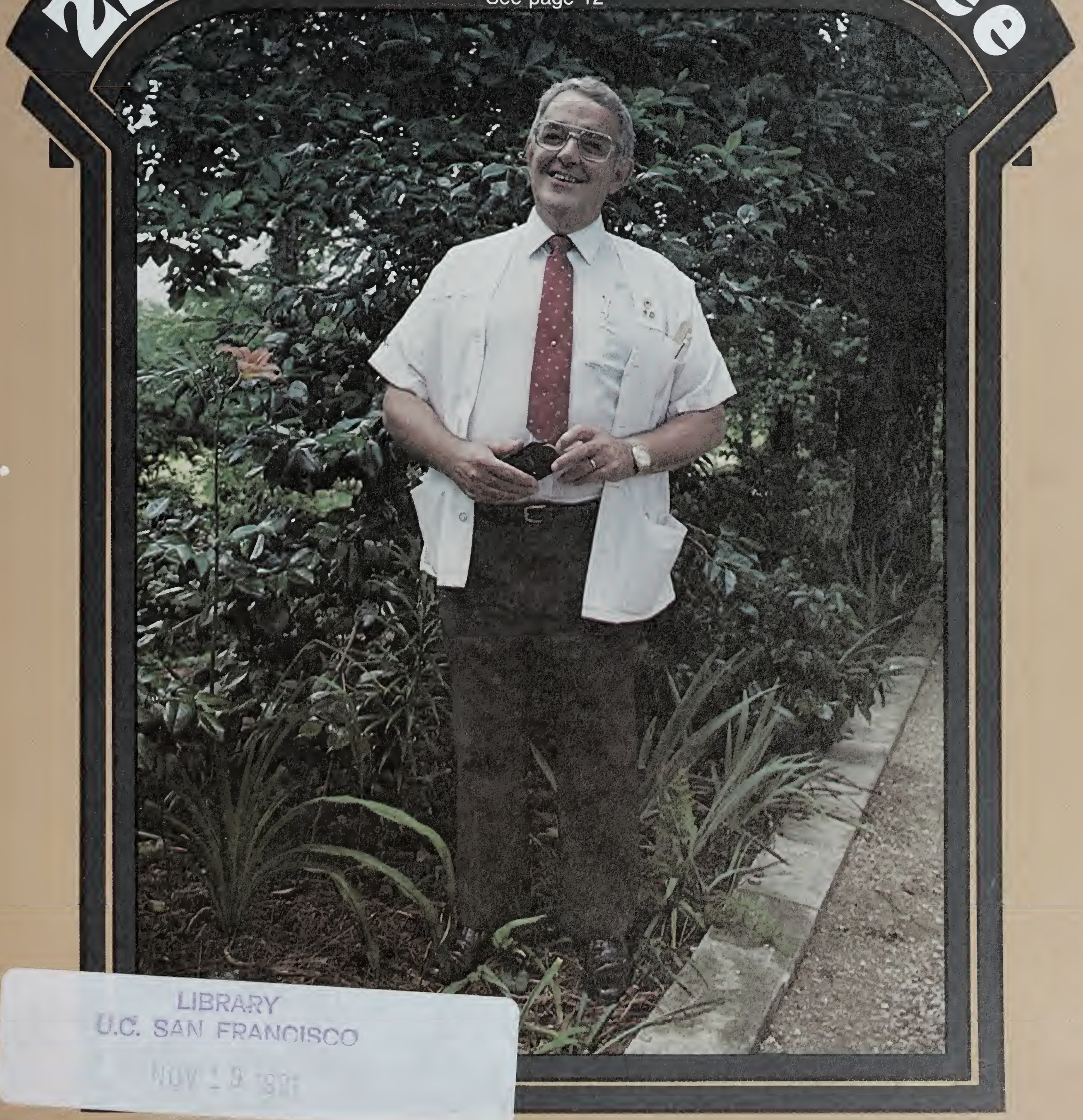
*due to susceptible strains of indicated organisms

Please see previous page for summary of product information.

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of the Medical Association of the State of Alabama
VOL. 50, NO. 12, JUNE, 1981

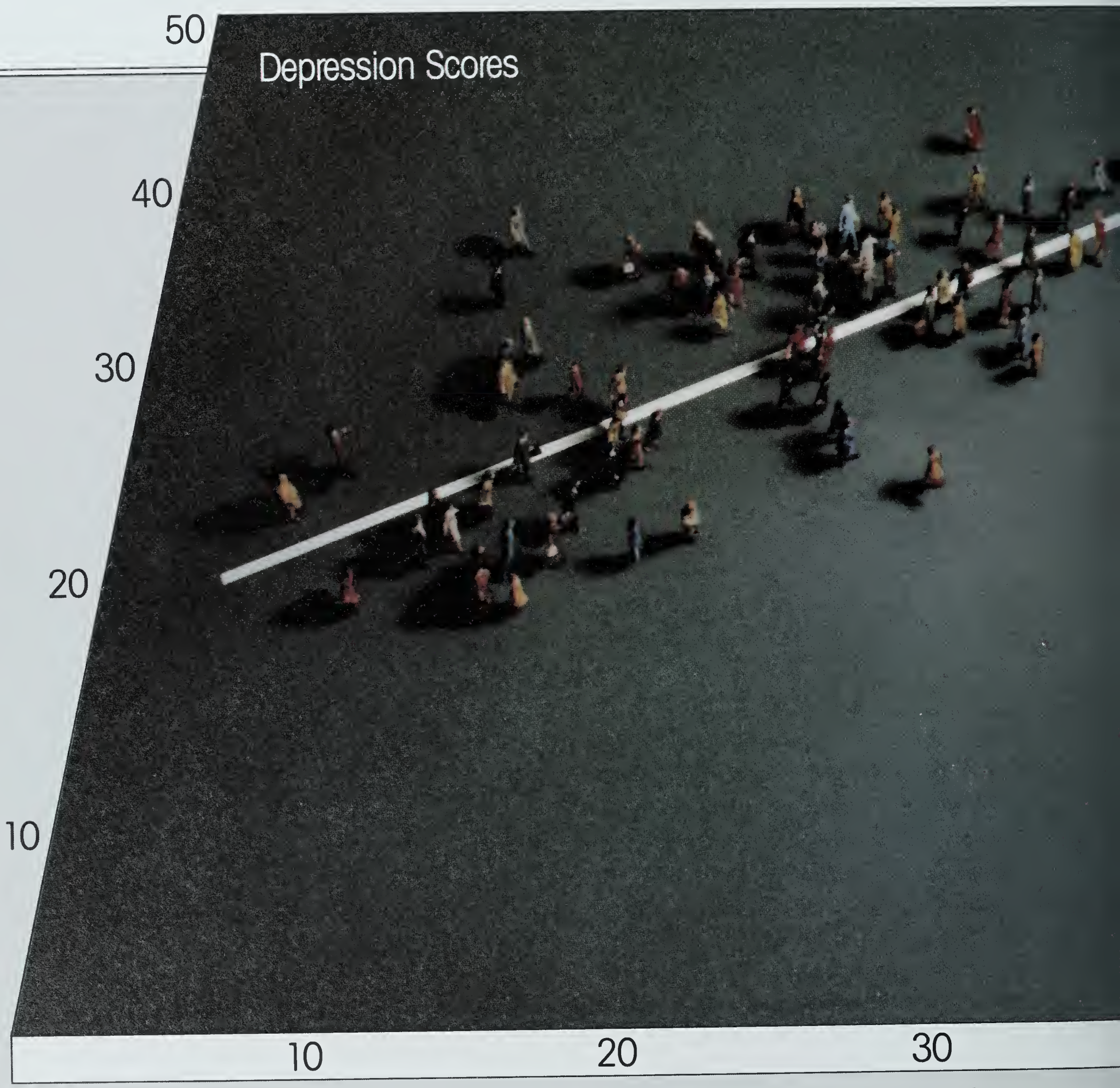
25 Years In Wedowee

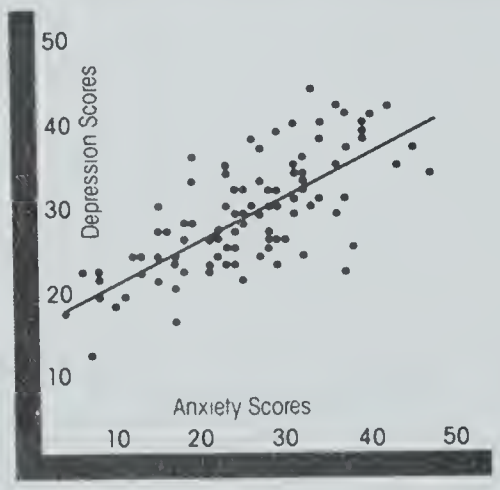
See page 12



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FOR THE 7 OF 10 NONPSYCHOTIC





Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

[3]Adapted from Claghorn, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

ROCHE

DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]



Most depressed patients are also anxious. . .

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.[5] Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine,* ed. Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35:*1359-1365, 1978. **3.** Claghorn J: The anxiety-depression syndrome. *Psychosomatics 11:*438-441, 1970. **4.** The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry 137:*1163-1172, 1980. **5.** Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology 61:*217-225, 1979.

In moderate depression and anxiety

Limbitrol® IV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquilizer–Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved Contraindicated during acute recovery phase following myocardial infarction.
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated: sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.
In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.
How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

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Information For Authors Concerning Manuscripts

Manuscripts should be typewritten, double spaced on white paper 8½x11 inches with adequate margins. The original copy, not the carbon copy, should be submitted. Authority for approval of all contributions rests with the Editor. *The Journal of The Medical Association of The State of Alabama* reserves the right to edit any material submitted. The publishers accept no responsibility for opinions expressed by contributors.

Style: The first page should list title, the author (or authors), degrees, and any institutional or other credits. Bibliographies must contain, in the order given: Name of author, title of article, name of periodicals with volume, page, month—day of month if weekly—and year. Number should be limited to absolute minimum. References should be numbered consecutively in order in which they appear in the text.

The *Stylebook/Editorial Manual,* published by the AMA, is the general reference for questions of style. It is particularly useful in the proper presentation of data. Available at cost ($6.50) from MASA. When conflicts occur between usage, etc., by an author and the stylebook, these will be resolved in favor of the author if his method is persuasive and logical.

Helpful to many writers is *The Elements of Style* by William Strunk Jr. and E. B. White, which emphasizes brevity, vigor and clarity. Available at cost ($1.65) from MASA.

Final authority on grammar is Webster's *New International,* Unabridged, Second Edition.

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Your Brother's Keeper

After years of discussion and planning, MASA's Impaired Physician Program has picked up speed in the past few months and is aiming at a fully operational program by Jan. 1.

Under the direction of Charles E. Herlihy, M.D., Chairman, the Executive Committee met in Mobile April 25 to map strategy. On June 20, a workshop on intervenor training was held in Montgomery. The basic instruction was provided by a physician who has won national attention for his program—G. Douglas Talbott, M.D., director of the Ridgeview Institute, and Director of the Georgia Medical Association's Disabled Doctor Program.

Flying in with Dr. Talbott were two of his top aides—Ed Pierce, Intervenor Counsellor; and Patricia Harwell, Dr. Talbott's Family Therapist, whose major field is working with spouses of impaired physicians.

Other meetings are scheduled throughout the balance of the year, looking toward the Jan. 1 activation of the system, which will include a hotline call procedure.

For too many years, the impaired physician has been the object of do-nothing pity, even ridicule, by his colleagues. The resulting conspiracy of silence has only exacerbated the problem, making help less likely than the kind now being employed in all of the successful programs.

The demands of the medical profession impose horrendous pressures on physicians. Even the strongest sometimes fall victim to chemical crutches they find themselves unable to give up without skilled help of the kind that has worked so brilliantly in our sister state of Georgia and elsewhere, strongly supported by the American Medical Association.

Who among you has not known of some fellow physician who has become one of the grim statistics? Until now, you felt powerless to help, perhaps saying sadly to yourself, "There but for the grace of God go I."

This feeling of frustrating impotence will soon end, thanks to the splendid work of Dr. Herlihy and MASA's Impaired Physician Committee—to be joined by Mrs. Rufus Lee, Dothan, Auxiliary President. Present members of the Committee are:

Charles W. Daniels, M.D., Mobile; B. Dowling Petrey, M.D., Ozark; R. Bob Mullins, Jr., M.D., Langdale; William J. Tally, M.D., Gadsden; Harry M. Simpson, Jr., M.D., Florence; Patrick H. Linton, M.D., Birmingham; L. Earl Glenn, M.D., Tuscaloosa; Robert S. Hogan, M.D., Birmingham; and Sumter Carmichael, M.D., Birmingham.

Additionally, 30 physician volunteers have been recruited for the important work, which is assisted by MASA's Director of Education, George D. Oetting, Ed.D.

I hope you agree that no work should be closer to the heart of physicians than the fraternal obligation each has for the other in the one profession that should be most concerned about its casualties to job stress.

Lon

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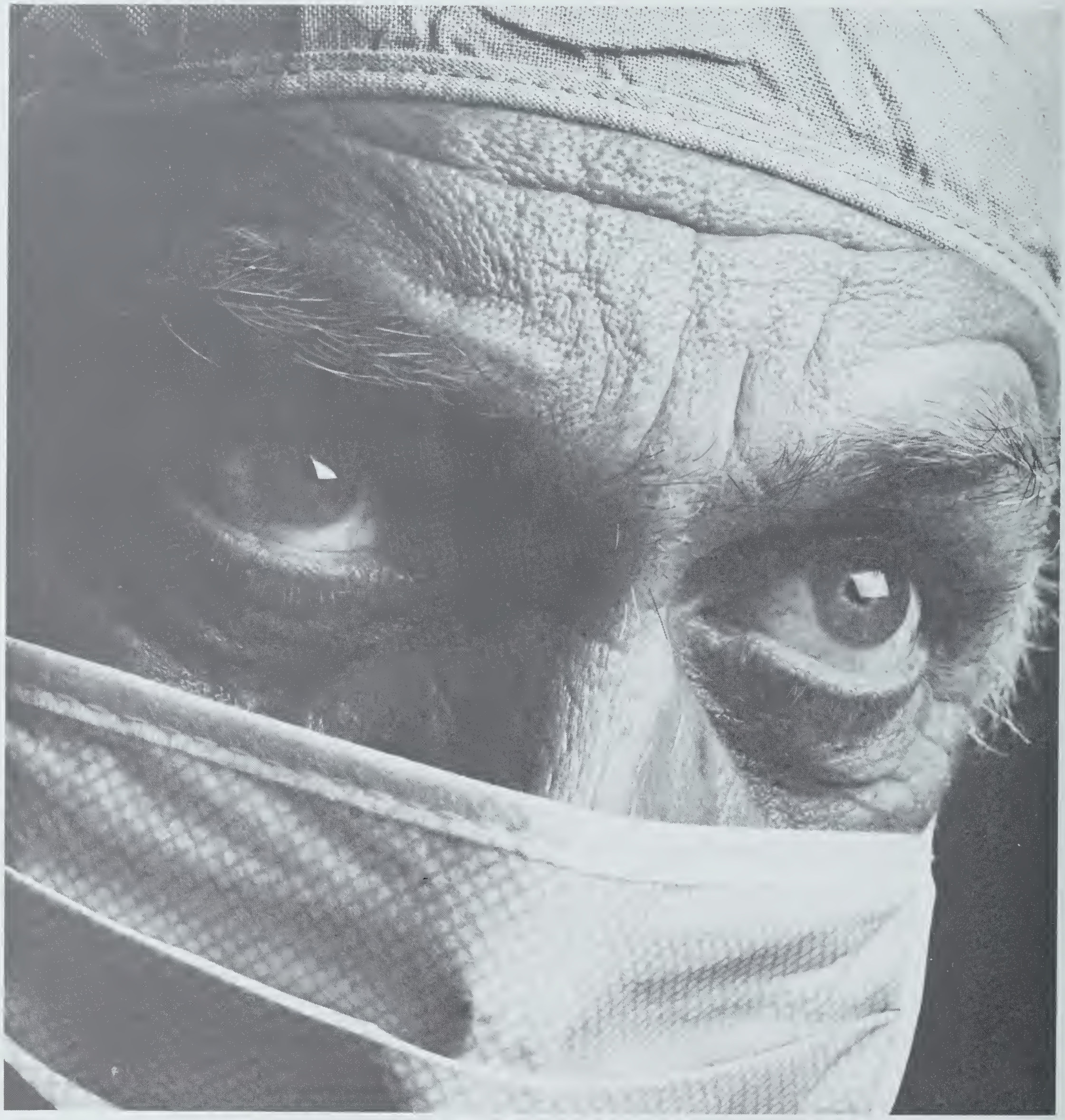
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PRESIDENT'S PAGE



J. Kendall Black, Jr., M. D.
President

The Alphabet of Advice

Back when I graduated from Medical School and finished internship the letter **A** of the alphabet was used as the overall general advice given by the old heads to the new docs. In this instance the words **available, amiable** and **able** were used and they seemed to adequately describe what the individual physician needed to have in order to build a successful practice. More often than no they were adhered to and the physician was a success.

In today's world I think that we can expand on the usage of the alphabet by dropping down two letters to the letter **C.** There are several words beginning with the letter **C** that come to mind with regard to the young physician but they are equally applicable to the practicing physician and the old timer. The first of these words is **committed.** Each of us demonstrates his commitment to medicine by simply finishing medical school and completing residency programs. We further demonstrate our commitment when we go into practice by our office hours and our call schedule.

The second work beginning with the letter **C** is **competent.** Again we demonstrate our competence when we receive the degree Doctor of Medicine and when we pass our Board Certification test. In our association we continue to demonstrate a measure of our competence by meeting the continuing medical education requirements. In the fast pace of today's practice, the ever expanding knowledge in the field of medicine as well as in the burgeoning technology available to each of us, competence is indeed a necessary and important item. Increasingly, we are going to have to demonstrate to the public as well as to the legislative and regulatory bodies that we as physicians are maintaining our competence.

The third work I would share with you is that of **concern.** As physicians, we must be concerned with the health of our patients, the health and welfare of our families, our personal health as well as the health of our profession in general. No longer can we fail to be concerned and no longer can we simply sit by as a passive observer. As I use the word it implies a willingness to involve one's self not just in the solitary practice of medicine but in the socioeconomics of medicine, the maintenance of the family unit and participation in the work ethic of America.

The fourth work that I would share with you is the work **caring.** We must be caring physicians, caring spouses, caring parents, caring community members. But above all we must really care for our patients and ourselves. We must care enough for our patients to maintain our competence, maintain our commitment, and express our concerns for their health as well as their lifestyle and at the same time we must care enough for our own selves as persons and as physicians to maintain exemplary health practices and family devotion.

The last word that I would share with you beginning with the letter **C** is the word **communication.** It perhaps is the most important work of them all. Communication implies listening as well as speaking. If you do not listen to your professor you do not become competent. If you do not listen to your patients you cannot show your concern. If you do not communicate your **competence,** your **concern** and your **care** to your patients, your families and even unto yourselves, you cannot be a successful practitioner of the science and the art of medicine.

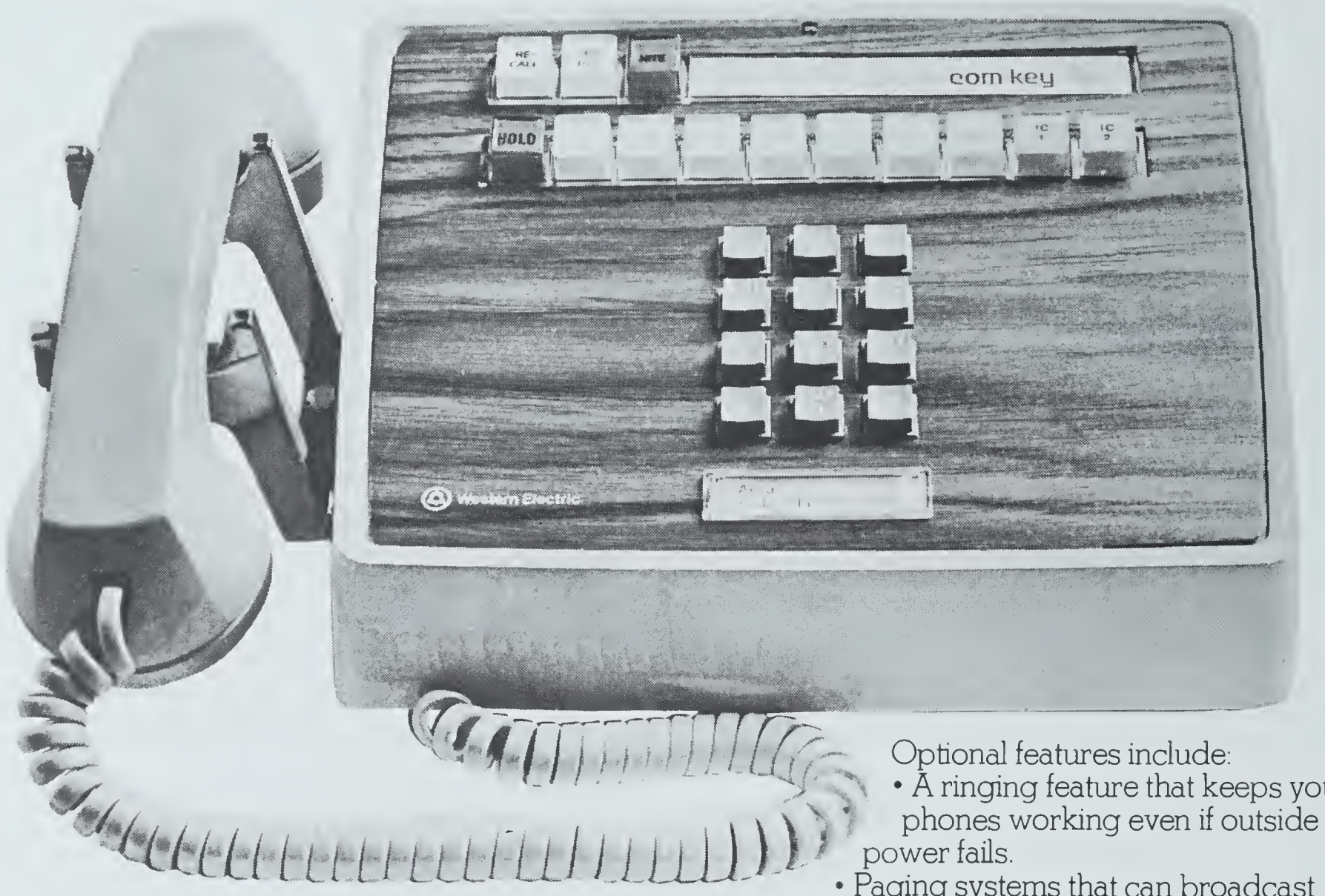
If your profession through you does not communicate to the citizens its desires for improvement of their health care, then the profession is unable to demonstrate its concern. But at the same time if we do not listen (the other half of a dialogue) we will not know what is happening and cannot prepare for the future.

In this my year of the Presidency of your Association I intend to adhere to the word **communicate.** I intend to utilize the full meaning of the word which implies a dialogue. We must speak to each other but we must listen more often than we speak.



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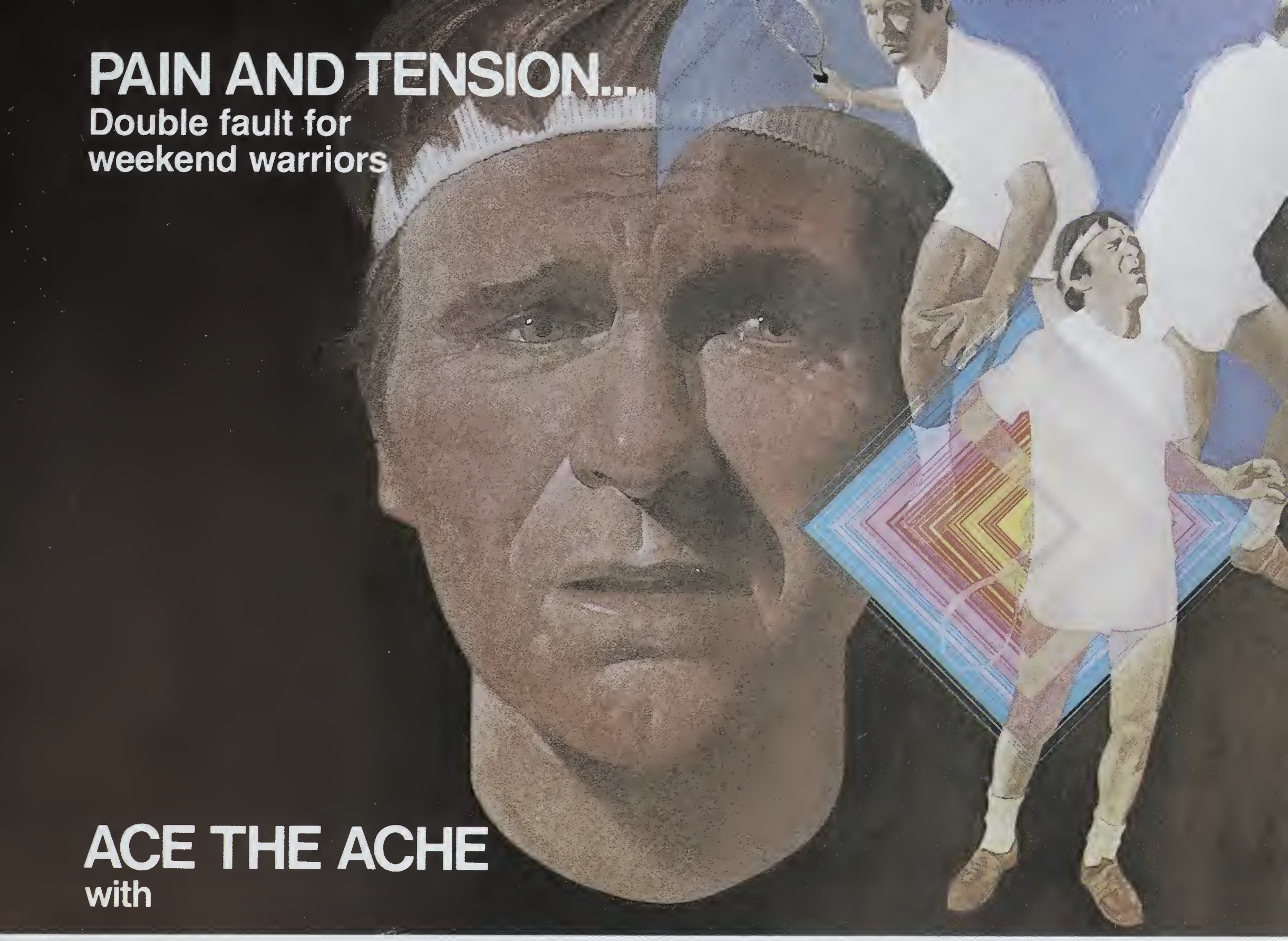
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Equagesic®©IV

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

*__INDICATIONS:__ Based on a review of this drug by the National Academy of Sciences—National Research Council and or other information, FDA has classified the indications as follows:
"Possibly" effective, for the treatment of pain accompanied by tension and or anxiety in patients with musculoskeletal disease or tension headache.
Final classification of the less-than-effective indications requires further investigation.
The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies. The physician should periodically reassess usefulness of the drug for the individual patient.

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate.

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug. Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed. Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures.

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination.

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under.

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery.

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended. The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels. Hyperventilation has been reported occasionally. Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow, CNS stimulants, e.g., caffeine, Metrazol, or amphetamine, may be cautiously administered. If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage. The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug. Previous history of allergy may or may not be related to the incidence of reactions.

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported.

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia. Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone. Meprobamate should be stopped, and reinstitution of therapy should not be attempted.

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia. In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate. A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug.

Impairment of accommodation and visual acuity has been reported rarely.

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported. These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery. However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur. Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time. Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication. Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions.

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin.

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*This drug has been evaluated as possibly effective for this indication

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for mild to moderate pain

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(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g driving a car or operating machinery Patients should be cautioned accordingly
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down.
Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.
MANAGEMENT OF OVERDOSAGE: SYMPTOMS
The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed After the initial symptoms, the patient may feel less ill; however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma and death may follow Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.
Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity A 13-gram dose has reportedly been fatal.
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions
Oxygen, IV fluids vasopressors and other supportive measures should be used as indicated Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity Serial hepatic enzyme determinations are also recommended.

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RECENT ADVANCES IN CHRONIC ACTIVE HEPATITIS

W. Roger Carlisle, M. D.
Birmingham, Alabama

Classic hepatology has identified two types of chronic hepatitis. The first type, chronic persistent hepatitis, is usually asymptomatic and does not progress to cirrhosis. Chemical abnormalities may persist for years and do not differentiate this entity from chronic active hepatitis.[1]

The second type is chronic active hepatitis, which is usually symptomatic and in most instances progresses to cirrhosis. The scattered and isolated reports of histologic findings of chronic active hepatitis in asymptomatic hepatitis B carriers, and the varying clinical course of chronic active hepatitis have made therapeutic and clinical decisions very difficult in evaluating this entity.[2]

Chronic hepatitis often begins from a subclinical viral hepatitis. Many times the first manifestation of this disease clinically is really an exacerbation of an underlying chronic disease. Hepatitis A does not cause chronic hepatitis. Hepatitis B progresses to a chronic stage in approximately ten percent of patients. Non-A, Non-B hepatitis seems to pursue a chronic course in a very large proportion of post-transfusion hepatitis patients.[2]

Chronic hepatitis seems to divide itself into two basic categories. There is an autoimmune group with positive anti-nuclear antibodies and positive anti-smooth muscle antibodies. These patients are generally hepatitis B surface antigen negative and are often seen with immune drug reactions. The second group seems to be a group of chronic persistent viral hepatitis which probably also involve a defect in the immune system, and defects in suppressor T-cell function. Genetic factors are also present in the pathogenesis of chronic hepatitis. Drugs are well-known causes of chronic hepatitis. The course of chronic hepatitis is variable with wide swings in the serum, amino, transferase levels. The course of chronic hepatitis is, by definition, longer than six months duration. There is no uniform course, even in benign Non-A, Non-B hepatitis. Many of these patients are now being detected with routine S.M.A. 12 screening measures.[3]

Complications of chronic hepatitis include hematologic disorders, renal tubular acidosis, immune complex disease with cryo precipitates, peripheral neuropathy, hemolytic anemia, membranous glomerulonephritis, polyarteritis nodosa, hyperamylasemia, autoimmune thyroiditis, hyperviscosity syndrome, primary pulmonary hypertension, and hepatocellular carcinoma.[4]

The best study demonstrating therapy for chronic hepatitis is still the continuing Mayo Clinic study. This is the largest and best controlled study. Unfortunately, only 6% of the control group in this study were hepatitis-B surface antigen positive. This investigation applied only to patients who had aminotransferase levels more than ten times the upper limit of normal, or five times normal if the gammaglobulin was twice normal. These criteria have held up in clinical situations and have stood the test of time.[5] The Sheila Sherlock study and the Mayo Clinic study have demonstrated that low dose Prednisone, approximately 12 to 20 mgs. of Prednisone, has achieved maximum benefit and effective results in treatment of chronic hepatitis. It is not clear whether this therapy is efficacious for hepatitis surface antigen positive disease. It is unclear whether patients with only piecemeal necrosis benefit from Prednisone therapy.[6] Approximately 80% of patients will respond to the initial low dose schedule. Patients who do not respond should be treated with a high dose schedule of 60 mgs. of Prednisone.

The greatest difficulty in treating chronic hepatitis is in deciding what to do with patients with low grade activity. We know that many people will progress to cirrhosis very slowly. It appears that disease which progresses over a ten to twenty year period may often be subclinical and should not be treated with steroids.

The hepatitis B vaccine will soon be available. This vaccine should cause an impact and reduction in chronic hepatitis although persistent disease will be with us for many years.

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PROFILE

Dr. Israel: A Quarter-Century in Wedowee

By William H. McDonald

WEDOWEE, Ala.

Twenty-five years ago this month, Willis D. Israel, M.D., was not smiling as he is on this month's cover.

It was the summer of 1956. He thought he would never smile again, or be content in what he was doing. He had arrived in Wedowee, Alabama, Randolph County, the last day of June, determined to be a country doctor.

Raised in Mountain Brook, the son of an interior decorator father who had done quite well refurbishing the palatial homes of the affluent along the Eastern Seaboard, Dr. Israel needed an income. With two young children, he and his wife couldn't hack it on the $100 a month he had been drawing as an intern in Birmingham.

Neither knew much of anything about rural life, except what they had heard about it. Mrs. Israel was Birmingham born and bred, quite accustomed to the amenities of city life. Dr. Israel figured he had **almost** been living in the boonies, since the Mountain Brook of his childhood was pretty far out in those days.

But apart from that, their decision to practice in the country was dictated more by whim than logic.

It Was Horrible

Neither will ever forget that long hot summer of 1956. Dr. Israel hated it. He couldn't eat, sleep or believe life was more than endless drudgery unleavened by the companionship of those who spoke the same language as he.

"It was simply horrible," he recalls.

The only medical person in Wedowee then was an RN. The town had a 14-bed hospital but that was about all it was—beds. Dr. Israel:

"It was really rough, that first summer. The isolation and loneliness, I guess, were mainly what got to me. And the culture shock: People wanted to talk about the pea crop and the corn and the chickens and the eggs and I didn't know or care anything about that."

After three months of profound regret that he had ever done such a fool thing, Dr. Israel sat himself down one night and had a talk with himself: Either you are going to make it and like it or you're not going to make it, he told himself. If you quit, it will be the first time you have given up.

Income was no problem. He had more patients than he could say grace over from the very first day he opened his practice. That wasn't it. What was bugging him was that he hated what he thought he would love. Hence the moment of truth when he had to decide to stand and fight or cut and run.

Tough It Out

He couldn't run. He had never run from anything. That being the case, he decided, he would make himself like it. On the 25th anniversary of that summer and that decision, Dr. Israel shakes his head almost in disbelief. He loves country practice; Wedowee; Randolph County.

By the fall of 1956, when the Cheaha range of the Appalachians loomed in all their flaming beauty on the horizon beyond Wedowee's main street, he was acclimated and reconciled to the life he had chosen. Almost overnight he knew he was happy, as happy as he thought he would be a year before, when he first visited Wedowee in October, with the autumnal beauty everywhere.

He has never had any doubts since. Riding around in his aging pickup truck, known to everyone, he is as much a part of the Wedowee landscape as its war memorial on the main drag. He can talk peas, corn, eggs and chickens with the best of them. And mean it. He has, in short, gone native; that happy smile he has worn the past couple of decades tells it all.

For one thing, he and Mrs. Israel and their four children have had the best of two worlds, rural and cosmopolitan. Atlanta to the East is only 90 minutes away; Birmingham to the Northwest and Montgomery to Southwest and are only about 15 minutes further, which is the way you begin to think of things in rural practice, Dr. Israel says. Distance is measured in units of time.

The graceful home the Israels have lived in all these years reflects their life in Wedowee: comfortable, unpretentious but exquisitely tasteful down to the last fine arts book and table, all plainly selected with unhurried care, with intrinsic beauty and utility as standards, not ostentation.

The Good Life

The four children grew up (the oldest, Bob, is practicing internal medicine in Mobile) with the comforts of a high school across the road, a creek out back, all the hunting and fishing they could ever want, and more fields and woodlands to explore than they could achieve in several lifetimes.

For variety, they have visited Atlanta, Birmingham and Montgomery often, coming to understand that the truly insular people are not those in the country but in the cities. Mrs. Israel waxed eloquent on this subject after her husband and his guest had polished off her marvelous lunch of country fried steak, fresh strawberries, vegetables fresh out of the garden and pie that was downright sinful.

(Continued on Page 14)

The Sage of Randolph County

Dr. Israel's editorials in **The Alabama Family** Physician have become collectibles, with many readers urging him to publish them in book form.

Dr. Israel's style is at times close to that of Mark Twain, the wise modesty of Lewis Thomas or the urbane wit of E. B. White. Which is to say that his philosophy and his way of stating it are uniquely his own. Samples:

On Variety:

"I'm sure I am sufficiently set in my ways to be irritating to a younger colleague. Yet I try consciously to vary everything, from the way I do a physical examination to the way I want my eggs cooked. . . ."

On the way people insist on non-medical judgments from doctors:

"One has to conclude that the problem is not that our generation is no longer able to think; rather it is no longer willing to take the responsibility of a decision. My medical training presumably prepared me to make medical decisions—even those affecting life and death. Nothing in my medical, social or moral training prepared me to make social or family decisions outside my own family. In reality I have made a decision: to refuse to make decisions that do not specifically or fundamentally affect the health of my patient. . . ."

On why America is bored:

". . . Why are most of my friends, most writers, most news media personnel, most young people, and 'most of me' so generally cynical about where America is and where it is going? Certainly the objectivity of cynicism is a mature and healthy sign of growing up. However, I am wondering if we can go into our country's third hundred years with any feeling of excitement and freshness, of adventure and accomplishment. . . . Sometimes it seems our problems may be largely a matter of 'muchness'. . . . Our leaders speak words which may have some element of wisdom. Twenty-four hours later they are utterly trite, having been repeated at four different hours for TV news and in a morning and afternoon newspaper. . . . The words of wisdom seem like tired old junk when we read them three times more in the weekly news magazines . . . Lincoln's Gettysburg Address would have been killed in its infancy (by) similar treatment. . . ."

On medical negativism:

"Some weeks ago I chanced to read the startling philosophy expressed that by and large Americans feel they are 'sick until proven well.' I find this point of view disquieting. . . . Positive thinking needs to sweep across America; perhaps there would be fewer sick-until-proven-well patients dependent on . . . Valium."

On politics and politicians:

"Presidential campaigns are too long; politics is generally not edifying; leaders are not necessarily the brightest members of our citizenry."

On the serendipidity of sloth:

"Pine straw which never quites get swept up is not too bad looking on the lawn . . ."

On over-praising children:

"As my children were growing up, I used to cringe when they were over-complimented for doing a good job by well-meaning adults after a child had given a mediocre speech or played an error-ridden piano piece in recital. Certainly children are to be encouraged and complimented but surely not with outright lies . . ."

On inadequate doctors:

"It is tragic to see the few doctors who attempt to get by rather than giving their best. Emerson said the reward of a job well done is to have done it . . ."

On the special privileges of a country doctor:

"No holiday arrives that I do not go home from my office laden with a home baked cake or two or an appropriate gift of flowers. . . . Rarely a summer days goes by that I do not receive some fresh produce grown and shared by patients . . . When we first came to Randolph County . . . a patient made and gave us quilts of many colors and designs. We quickly discovered that sleeping under a quilt is more comfortable than sleeping under a blanket . . . What a privilege to know thoughtful people. . . ."

On bureaucratic inhumanity:

"There is an element of humanity uniquely a part of the medical profession. Bureaucratic inhumanity can only diminish the humanity of us all. . . ."

Life in the 1930s:

". . . I always had two pair of shoes—an everyday pair and a Sunday pair. The Sunday pair were a size too large so that they could be demoted to everyday shoes next season. . ."

On the decline of quality:

"Which came first: carelessness with belongings or planned obsolescence and poor workmanship?"

On middle age:

"Gray hair looks as good on me as any other color. Fleeting episodes of arthritis are no worse than some of the problems of youth; even middle aged eyes are tolerable . . . However, I find it easy to resent not being able to accomplish quite as much hard work in one day . . . I know I am old when I remember so clearly when the tenths of gallons turned faster on the gasoline pump than the cents. . . ."

On mannerisms:

"For nearly a generation the ultimate good has been the cool and casual. Unfortunately, it is a short step from the cool approach to the cynical, bored attitude we see all too often . . . It is cool to be cool, but not cool to be bored . . ."

(Continued on Page 56)

(Continued from Page 12)

Intellectual isolation, Mrs. Israel's thesis seems to be, is a state of mind, and those most victimized by it are the recluses in the lonely crowds of the cities. Country people know far more about their world than most denizens of the city, she says; they certainly care more about each other.

Taking Root

Dr. Israel's philosophical variant of this is: "Bloom where you are planted." He got that from his father, who was forever repeating it—bloom where you are planted. Don't vegetate, bloom.

After a false start, the Israels have bloomed in Wedowee, as have their children, two graduating from Vanderbilt and two from the University of Alabama.

Mrs. Israel's endorsement of their life is important since every major survey on practice location has affirmed and reaffirmed the primary importance of the wife's view of rural practice. It is usually dim. That being so, the retention rate of young physicians who can be lured into rural practice is low. Worse still, the hostility of wives to the boondocks is intensifying, according to a recent survey by the College of Community Health Sciences, Tuscaloosa. Reason: the professional level of spouses is rising too and they want to be in an environment where they can use their skills.

Dr. Israel's advice to any young physician thinking of rural practice is: Don't. Not unless you know exactly what you are getting into; unless there is at least one other physician around to avoid the terrible isolation that is the occupational hazard of rural practice; and unless your wife is totally convinced.

In sum, it has to be a calling in the old sense—the total commitment of heart, mind and body to a kind of practice that admits of no midground between love and hate. If you can't love it, you will surely hate it.

From Square One

Even in early grammar school, Willis Israel was haunting the Birmingham Public Library, devouring all the books he could find on physiology, anatomy and general science. The librarians wouldn't let him check out the books. He was too young, they go told him, as if to say he ought to be out playing instead of reading all that stuff.

Undismayed, he plowed through the complete works of Paul de Kruif and absorbed anatomists and physiologists whose names he can no longer remember. Why?

"Because I just started out life wanting to be a doctor. I never wanted to be anything else, never thought about anything else."

His father, of third generation Austrian extraction, was delighted, since he himself had never finished grammar school. He had worked his way up to the highest rating he could aspire to in the trade unions as a master painter and paper-hanger before finding his niche in interior decorating at a time when few knew what it that was.

The senior Israel had plans for Willis to go to Austria for his university education, but the outbreak of World War II torpedoed those plans. Dr. Israel was graduated much closer to home, from the University of Alabama School of Medicine, Birmingham. He had always intended to go back for his residency in internal medicine, but he's been too busy these 25 years in Wedowee, years that have slipped by.

His modern, spacious office is right across the street from the well-equipped 34-bed county hospital, a far cry from the state of things he found that summer of 1956. There is no sign of any kind on Dr. Israel's office. It never occurred to him to hang out his shingle. People know him and know where he

(Continued on Page 56)

Movement Against Medicine

For a time, Dr. Israel had nurse practitioners working with him in Randolph County, but he quickly soured on that and says of his experience:

"You'd be amazed at the attitude of the federal government and these people working for them. Their whole approach, their whole attitude, is to destroy the way medicine is practiced in this country now. They're out to do it, and they intend to do it if they can. I'm convinced of that.

"I got in on this nurse practitioner thing just to see if there was any viability to it, and I'm convinced there's not. I don't think it ought to be allowed.

"I was really amazed at talking to people in Atlanta, the administrators of these clinics. Their attitude was that the practice of medicine in this country was wrong and they were going to change it. They stated that. They just said, we are going to change it. It was frightening.

"I think the entire plan was to move into the back door and take over through the clinics and such."

Asked how, in his own experience, the nurse practitioner experiment failed, Dr. Israel replied:

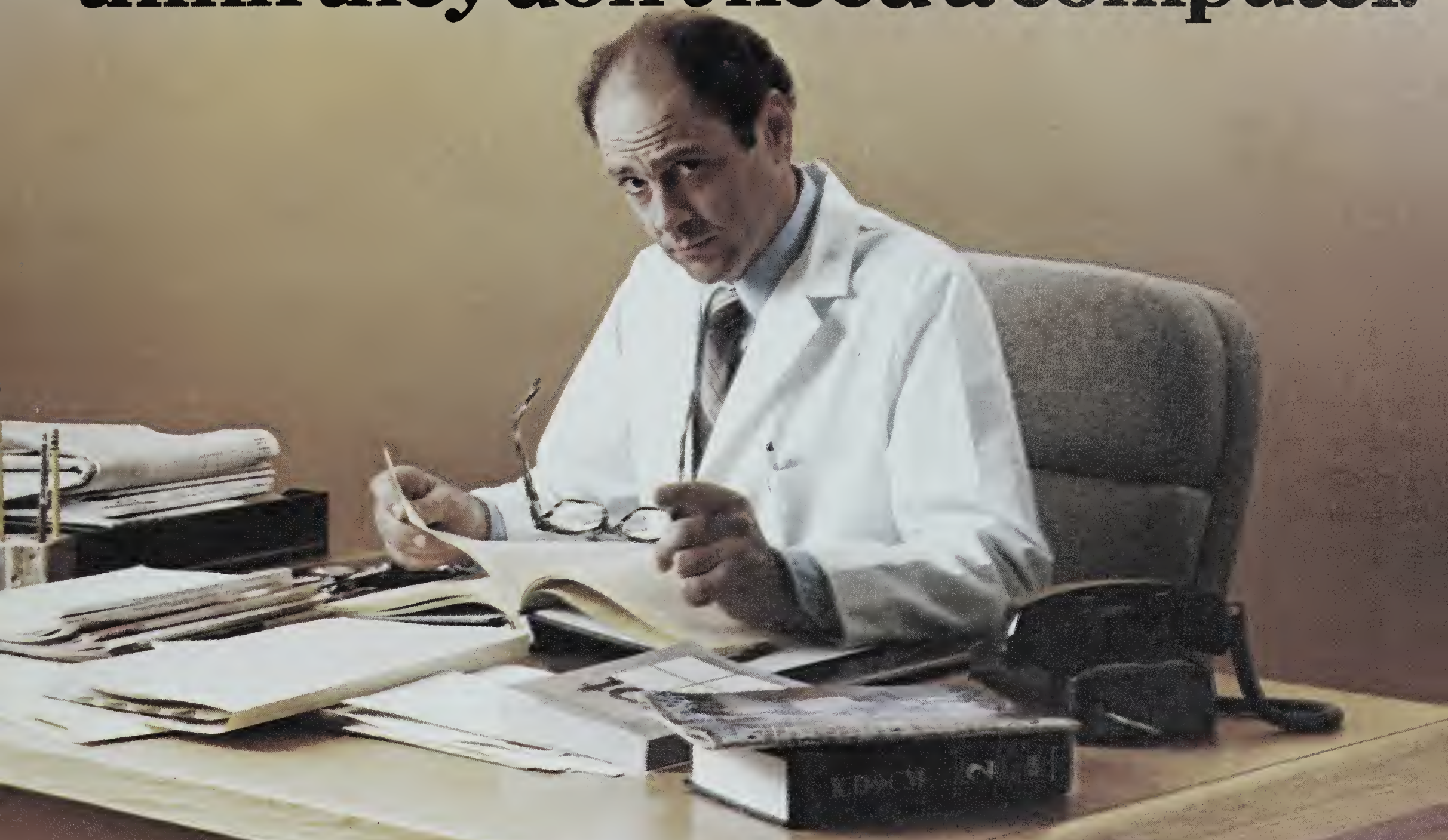
"They just became too independent. They say they are under the control of doctors but they are not. They practice independently and I know they do. They rarely see the doctor.

"But the whole idea was to establish nurse practitioners as independent practitioners of medicine. I am absolutely convinced it was done with the idea of breaking up the practice of medicine as we know it.

"It was claimed to be a better way and a cheaper way. It was neither. I think that back in the Johnson and Kennedy years the federal government took the attitude that they were going to replace American medicine. They decided they would do it the best way they could—with the sociologists and their ideas of medically underserved areas.

"That's a lot of nonsense. Country people have better medicine and easier access to it than ever in history."

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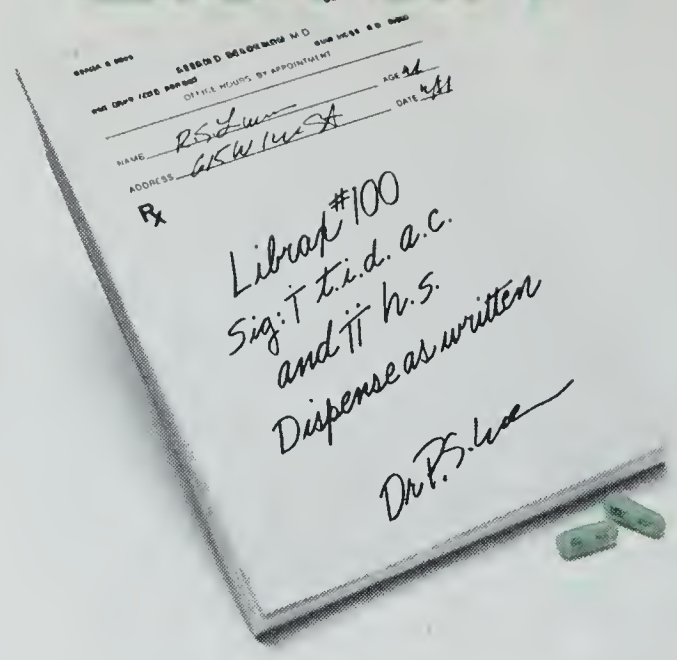
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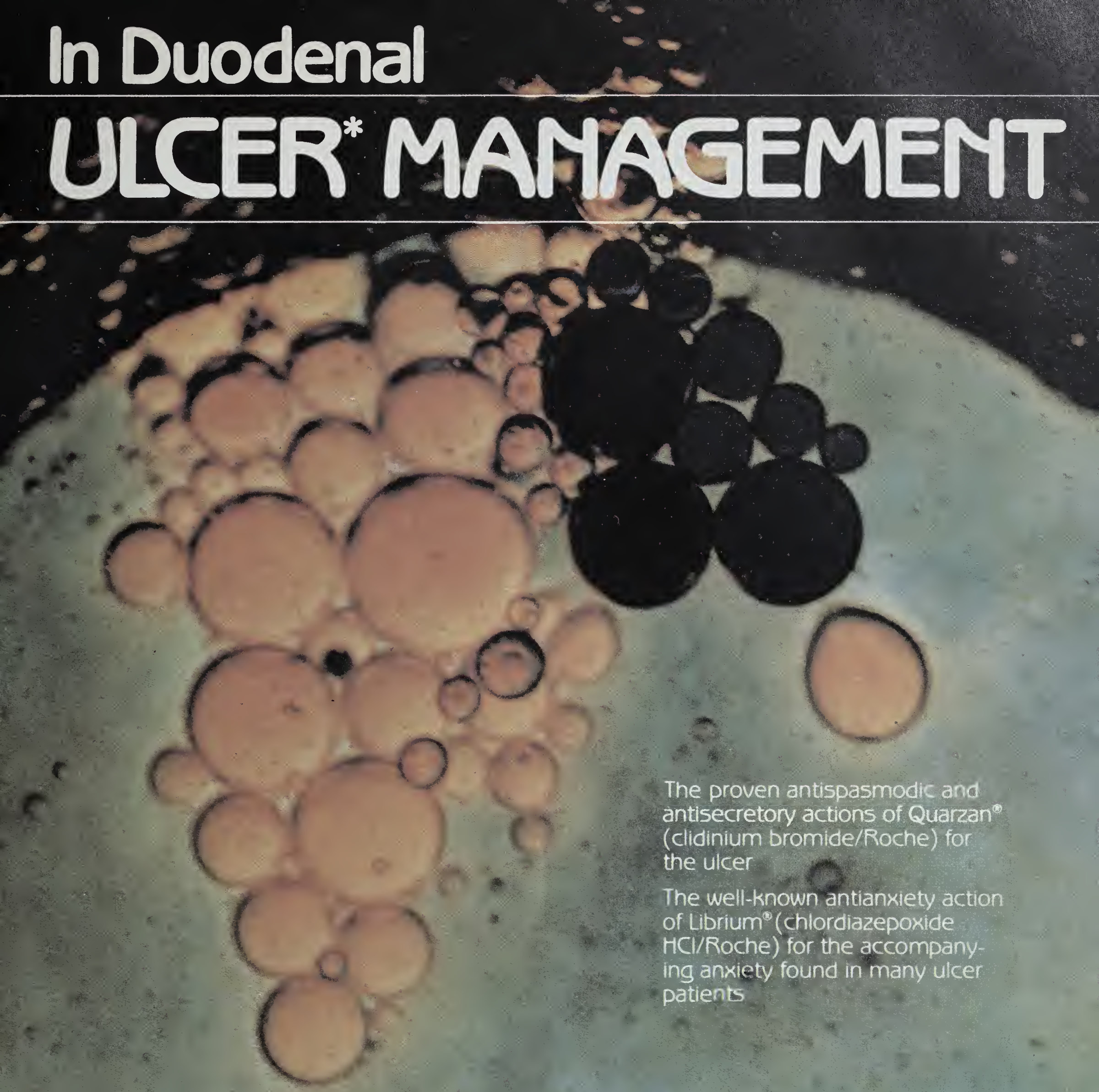
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Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of January, 1980

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Summary

An epidemic of rabies in raccoons that began in Florida in the 1950s has extended to Alabama, Georgia, and South Carolina. Rabies virus is established in raccoons in southeastern Alabama with the involved area increasing in size each year. Rabid raccoons often are not aggressive but they are seen during daylight hours near houses. They have no fear of man or dogs. Twenty-five people received rabies vaccine following exposure to rabid raccoons in Alabama in 1978 and 1979 but only 4 of the 25 should have received vaccine under recognized criteria. Raccoons should not be kept as pets.

The first reported case of rabies in a raccoon *(Procyon lotor)* in the United States was in California in 1936.[1] Since then, rabies in raccoons has been reported throughout much of the United States, but rarely in large numbers until the 1950's when it became a problem in Florida, apparently as a new phenomenon.[21]

One exception is New York where 180 cases were reported over the 25 year period 1941-1965, with annual totals varying from 1-28 during that time.[20] It was felt these cases represented spread from other species rather than foci of infection in raccoons.

The first rabid raccoon reported in Florida occurred along its eastcentral coast in 1947. By 1958, 31 counties had reported rabies in raccoons and the virus had spread north and south in the peninsular area of the state, appearing to travel along the major waterways.[3] In the early 1960's, raccoons became the most common host for rabies virus in Florida and the problem expanded northward into Georgia.[4] Raccoons made up 47% of all reported rabies cases in Florida 1951-1973, and 19% of all raccoons submitted for examination in Florida for the years 1953-1973 were found to be rabid.[1] Expansion westward into the Florida panhandle did not occur until November of 1970 when 4 cases were reported in Bay County.[5] High numbers of rabid raccoons continue to be reported from Florida reaching 85 in 1980 (Table 1, Figure 1). It may be of significance that all 5 of Florida's 67 counties from which rabid raccoons have not been reported are in the panhandle (Figure 1). (State of Florida Department of Health and Rehabilitative Services, personal communication, 1980).

The northward spread of raccoon rabies from Florida did not spill over into Georgia until 1962 but the following year 70 rabid raccoons were reported from its south-central counties. The raccoon rabies epidemic continued to spread northward through Georgia and, by 1978, had spread well into the northern part of the state (Table 2, Figure 2). There were 249 rabid raccoons among 290 total animal rabies cases reported in 1978, and on a square mile basis, Georgia had the highest incidence of rabies in the United States.[7] In 1979, the number of rabid raccoons continued to increase, with a total of 279 reported. (Georgia Department of Human Resources, personal communication, 1980.) In 1960-1970, 85% of the reported raccoon cases in the U. S. were from Florida and Georgia.[5]

South Carolina reported its first rabid raccoon in 1972, in a county bordering with Georgia. The number had increased only to 17 by 1977, but 99 rabid raccoons were reported in 1978 (Table 3, Figure 3). The number peaked in 1979 with 137 rabid raccoons reported within the state. (South Carolina Department of Health and

Environmental Control, personal communication, 1980.)

Alabama's first reported case of rabies in raccoons was from Houston county in 1961 (Table 4, Figure 4) but the second case was not reported until 1970, again from southeast Alabama. For the next 8 years, 1970 through 1977, 28 cases were reported from a 12 county area in the southeast part of the state, a mean of 3.5 cases per year.

Now the infection is highly prevalent in this species in Florida, Georgia, South Carolina, and the southeast portion of Alabama. In 1977, ninety-five percent (266 out of 281) of the reported raccoon cases in the United States came from this 4 state area.[2]

The annual number of reported rabid raccoons in Alabama did not exceed 6 until 1978, when 30 cases were reported. In November of that year, Alabama's Public Health Director declared that a rabies epidemic existed in 9 southeastern counties in which rabies was reported in raccoons and domestic animals (5 dogs, 4 cats, and 1 cow). These counties had not reported a single case of rabies in domestic animals in 1977.

In 1979, 36 rabid raccoons were reported, again from the same 12 county area. These counties also reported rabies in 5 foxes, 2 bats, 3 dogs, and 1 cat that year. Rabies was reported in a horse from Montgomery County, whose southern border adjoins 2 counties reporting rabies in raccoons.

This report describes some of the circumstances surrounding the current raccoon rabies epidemic in Alabama.

Materials and Methods

The determination of rabies in this report was made by the Alabama Department of Public Health, Clinical Laboratory Administration. Any animal suspected of having rabies may be submitted by Alabama residents. The fluorescent rabies antibody (FRA) technique is utilized as the routine test, and portions of the brain stem, cerebellum, cerebral cortex, and hippocampus of each brain are examined.

The historical dates and geographic distribution of rabid animals were obtained from records of the Alabama Department of Public Health. More detailed information on the 66 rabid raccoons reported in 1978 and 1979 was obtained through telephone investigations. Either the person discovering the case or the person submitting the specimen was asked a series of questions from a prepared questionnaire. All investigations were conducted by one interviewer.

To gain some insight into the sensitivity of surveillance, selected fur buying operations were requested to freeze heads from raccoons trapped in southeastern Alabama counties that had not reported rabid raccoons in 1978 or 1979. Brains from these heads were examined by the FRA teachnique as though they were suspects.

Results

Rabid raccoons were submitted year round, but were less frequent in January, February, and March. The incidence rose in April, subsided somewhat in May and June, then peaked in October (Figure 5).

The majority of the 66 rabid raccoons reported from Alabama in 1978-1979 were submitted for examination after they had been found in yards during daylight hours, and either were attacked or cornered by dogs. Forty-nine (74%) were discovered during daylight hours, 11 (17%) at night, and data were not available on 6 (9%). Eighty percent were encountered within yards of homes, 12% were found in fields, and 8% first were seen by roadsides. Dogs were present when rabid raccoons were found in 76% of the cases studied and actually were involved in fights with raccoons in 42%.

Table 4. Rabies in Raccoons in Alabama by County and Year, 1961-1980.

County	1961	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Barbour	—	—	—	—	—	1	—	—	—	7	4	1
Bullock	—	—	—	—	—	—	—	—	—	—	—	1
Butler	—	—	—	—	—	—	—	—	4	—	1	—
Coffee	—	—	—	2	—	—	—	—	1	1	1	1
Covington	—	—	—	—	—	—	—	1	—	3	—	—
Crenshaw	—	—	—	—	—	—	1	—	—	2	1	1
Dale	—	—	—	—	—	—	—	1	—	4	4	7
Geneva	—	—	—	—	—	1	—	—	—	4	5	2
Henry	—	1	—	—	—	—	—	—	—	5	9	3
Houston	1	—	2	1	—	—	1	3	—	3	6	4
Lee	—	—	—	2	1	—	—	—	—	—	—	1
Pike	—	—	—	—	—	—	1	1	—	1	1	1
Russell	—	—	—	—	—	2	1	—	—	—	4	1
Total	1	1	2	5	1	4	4	6	5	30	36	23

There were 23 cases where judgments could be made with confidence concerning fights between dogs and rabid raccoons. In 12 of these, the dogs were considered the aggressors and the raccoons merely the victims of wandering into the dogs' attention area. In 5 cases, the raccoons were considered the aggressors. In 2 other cases, rabid raccoons appeared to be playing with dogs. In 3 instances, dead rabid raccoons were found with dogs inside completely fenced dog pens, and another was reported to have fought with a dog which was tied.

One afternoon in Coffee County, cattle were observed chasing a rabid raccoon. The 5 or 6 cattle had almost killed the raccoon before their owner discovered what was happening and destroyed the raccoon. The nose of 1 cow was bloody at the time of the incident so that cow was slaughtered the next day. The other cattle were vaccinated. None had developed rabies 5 months later.

Information was obtained on the behavior of 2 caged rabid raccoons. A family in Dale County that had found a male raccoon in the woods as a kitten, kept him 8 months before he escaped from his cage. When he returned after an absence of one week, it was obvious that he had been in a fight. The raccoon was returned to his cage, and his behavior appeared normal until 1 month later when he was observed to bite and chew his feed bowl as if in great pain. The day after these observations were made the raccoon was found dead.

Another raccoon was caught with a pig snare by a local veterinarian as it walked along a road side in Houston County. The raccoon was young and healthy in physical appearance, but lethargic and easily caught. When placed in a holding cage, its behavior was described as nonaggressive and depressed with alternating periods of activity and inactivity. The raccoon died after 2 days of captivity.

Twenty-six percent of the rabid raccoons were noted as having one or more outward clinical signs of disease. Although these reports varied, the most frequent observation was that the raccoon was thin or that its coat was in poor condition. Other reports included: one crippled in the left rear leg; one that dragged both rear legs; and one that had multiple lacerations around the nose and face.

Eighteen percent of the rabid raccoons appeared to be immature. Five were noted to be females and 9 males. Sex was undetermined in the remaining 52 cases.

Twenty-five people received rabies vaccine as a result of exposure to the 66 rabid raccoons studied, a ratio of 0.38 persons per rabid raccoon. The ages of the individuals treated varied from 8 to 87 years, with 8 children (15 years old or less) and 17 adults. Twenty of the vaccinated people were males and 5 were females.

Three exposures were the result of bites and another the result of a scratch or bite. Two males were bitten and

CYCLAPEN®-W (cyclacillin)

Indications

Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications: Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and phoryngitis coused by Group A beto-hemolytic streptococci

Bronchitis ond pneumonia caused by *S. pneumaniae* (formerly *D. pneumoniae*)

Otitis medio coused by *S. pneumoniae* (formerly *D. pneumaniae*) ond *H. influenzae*

Acute exacerbotion of chronic bronchitis coused by *H. influenzae**

*Though clinicol improvement hos been shown, bocteriologic cures connot be expected in oll potients with chronic respirotory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentory) infections coused by Group A beta-hemolytic streptococci ond stophylococci, nonpenicillinose producers.

URINARY TRACT INFECTIONS coused by *E. coli* ond *P. mirabilis*. (This drug should not be used in ony *E. coli* ond *P. mirobilis* infections other thon urinory troct.)

NOTE: Perform cultures ond susceptibility tests initiolly ond during treotment to monitor effectiveness of theropy ond susceptibility of bocterio. Theropy may be instituted prior to results of sensitivity testing.

Contraindications Controindicoted in individuals with history of on ollergic reoction to penicillins.

Warnings Cyclacillin should only be prescribed for the indications listed herein.

Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.

Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.

Precautions Prolonged use of ontibiotics moy promote overgrowth of nonsusceptible orgonisms. If superinfection occurs, toke oppropriote meosures.

PREGNANCY: Pregnoncy Cotegory B. Reproduction studies performed in mice ond rots ot doses up to 10 times the humon dose reveoled no evidence of impoired fertility or horm to the fetus due to cyclocillin. There ore, however, no adequate ond well-controlled studies in pregnont women. Because onimol reproduction studies are not always predictive of humon response, use this drug during pregnoncy only if cleorly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because mony drugs ore, exercise coution when cyclacillin is given to a nursing womon.

Adverse Reactions Orol cyclocillin is generolly well toleroted. As with other penicillins, untoword sensitivity reoctions ore likely, porticulorly in those who previously demonstroted penicillin hypersensitivity or with history of ollergy, osthmo, hoy fever, or urticorio. Adverse reoctions reported with cyclocillin: diorrheo (in opproximotely 1 out of 20 patients treoted), nauseo ond vomiting (in opproximotely 1 in 50), ond skin rosh (in opproximotely 1 in 60). Isoloted instonces of heodoche, dizziness, abdominal poin, voginitis, ond urticorio hove been reported. (See WARNINGS) Other less frequent adverse reactions which moy occur ond ore reported with other penicillins ore onemio, thrombocytopenia, thrombocytopenic purpura, leukopenio, neutropenio ond eosinophilio. These reoctions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations hove been reported.

As with ontibiotic therapy generolly, continue treotment ot leost 48 to 72 hours after potient becomes osymptomotic or until bocterial eradication is evidenced. In Group A beta-hemolytic streptococcol infections, ot leost 10 days' treatment is recommended to guard ogoinst risk of rheumatic fever or glomerulonephritis. In chronic urinory tract infection, frequent bocteriologic and clinicol opproisol is necessory during theropy ond possibly for severol months ofter. Persistent infection may require treatment for severol weeks.

Cyclocillin is not indicoted in children under 2 months of oge.

Patients with Renal Foilure Cyclacillin moy be sofely odministered to patients with reduced renol function. Due to prolonged serum holf-life, potients with vorious degrees of renal impoirment moy require chonge in dosoge level (see DOSAGE AND ADMINISTRATION in pockoge insert).

Dosage (Give in equolly spoced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Troct		
Tonsillitis & Phoryngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Branchitis ond Pneumonio		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/doy q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/doy q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/doy†
Urinory Tract	500 mg q.i.d.	100 mg/kg/doy

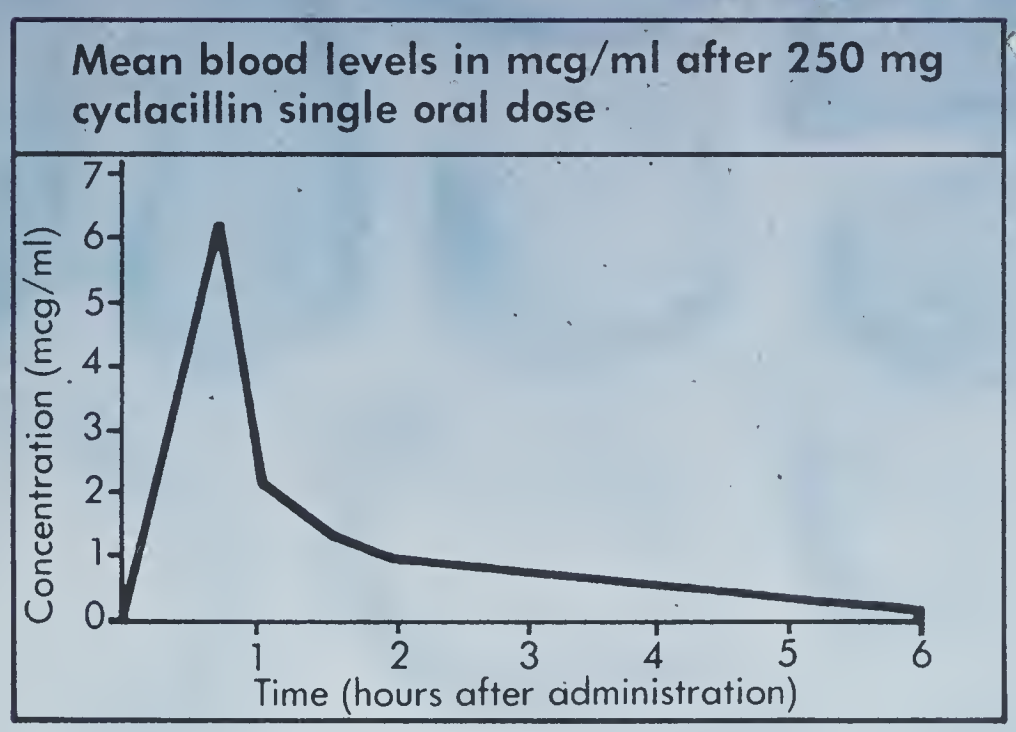
*Dosoge should not result in a dose higher thon that for adults.
†depending on severity

Wyeth Laboratories
Philadelphia, Pa 19101

Half the dose is absorbed in 9 minutes!

compared to 32 minutes for ampicillin.*





- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Bosed on T^{a} ½ volues for single oral doses of 500 mg cyclacillin tablet ond 500 mg ompicillin copsule. Doto on file, Wyeth Loborotories.

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Wyeth Laboratories · Philadelphia, Pa. 19101

Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

CYCLAPEN®-W

(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

NEW NAME

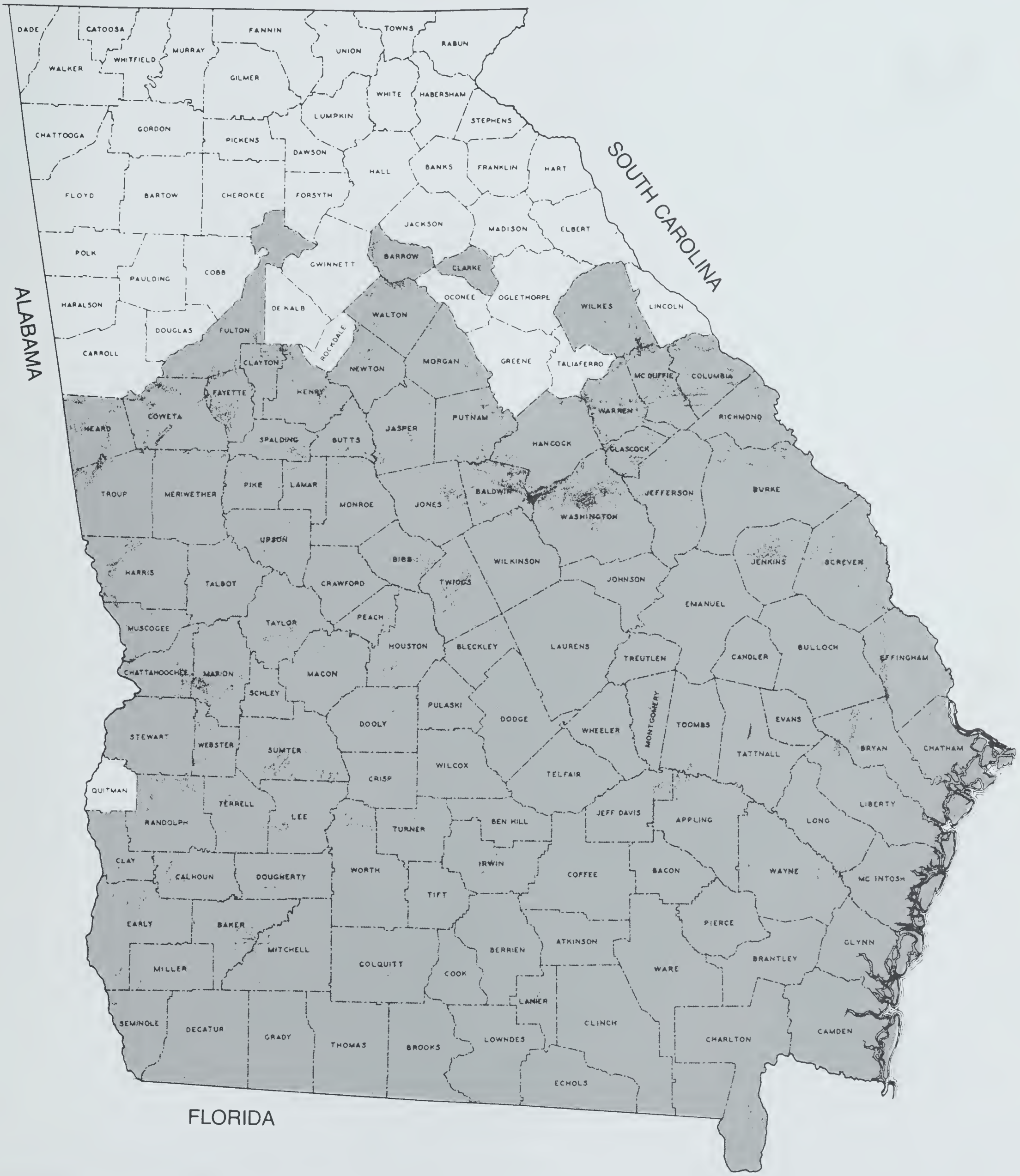
more than just spectrum

Figure 1. Counties in Florida Reporting Rabid Raccoons, 1953-1979.



Shaded areas indicate affected counties.

Figure 2. Counties in Georgia Reporting Rabid Raccoons, 1962-1980.



Shaded areas indicate affected counties

one was scratched while separating rabid raccoons from dogs during fights. The third bite victim was a 17 year-old male who was bitten as he bent down to free a raccoon cornered under the house by several dogs. The raccoon bit his hand so severely that he lifted the raccoon off the ground by its teeth while trying to shake it loose.

A 15-year-old male with infected fire ant bites on his arms received treatment after pulling a lethargic rabid raccoon from a stream and carrying it to safety. Two people were vaccinated after handling the bloody end of a stick used to kill a rabid raccoon. Three people were vaccinated after handling dogs that had fought with rabid raccoons. The majority, 15 cases, were vaccinated after handling or touching carcasses of dead raccoons which later were determined to have rabies.

Brain samples from 76 trapped raccoons were examined by the FRA test and 2 found positive.

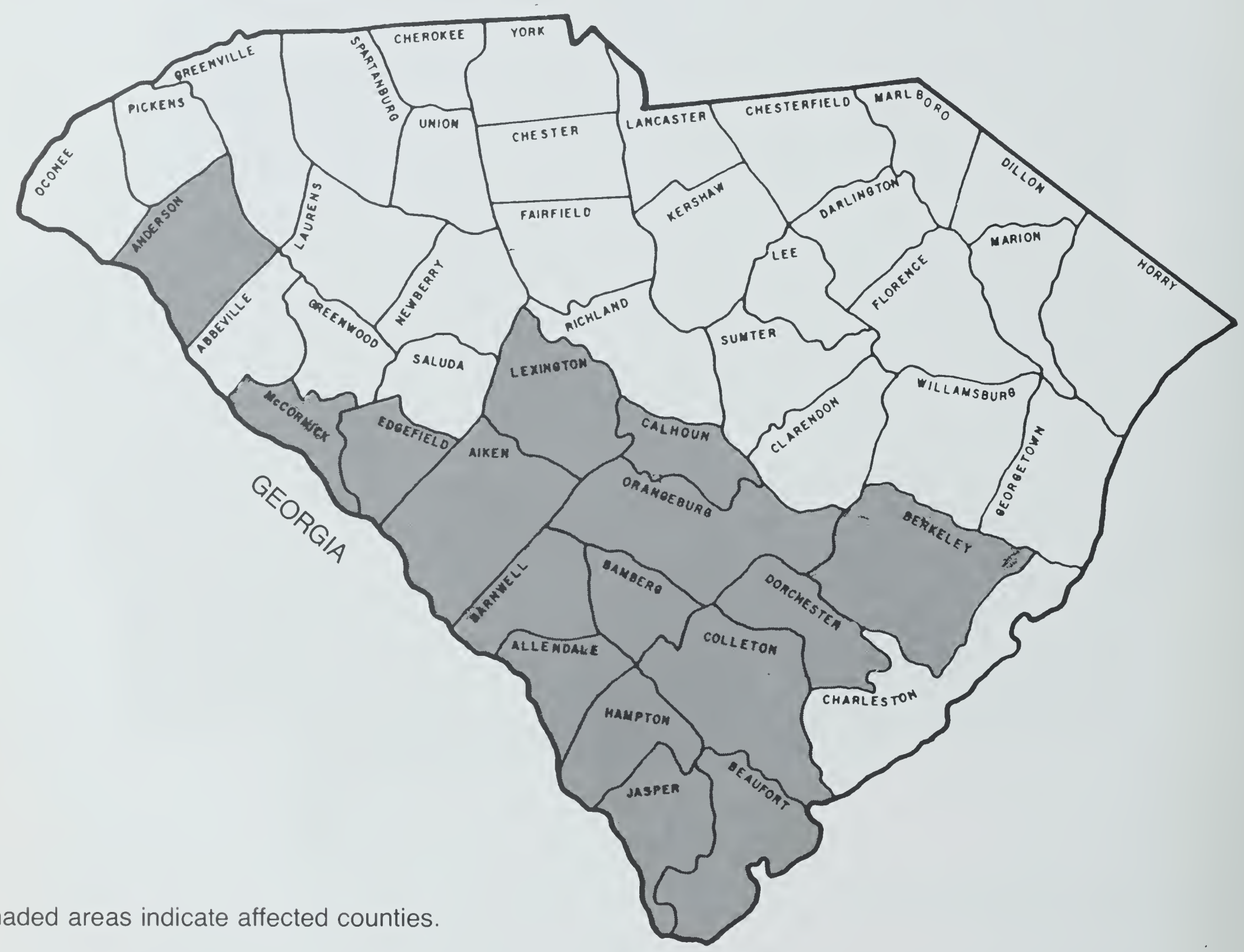
Discussion

The lone case of rabies in Alabama in 1961 probably was a spillover from foxes in which rabies was prevalent at that time. However, the annual regularity of reports in Alabama since 1970 appears to be related directly to the westward spread of raccoon rabies from the Florida peninsula into the panhandle located directly below Alabama.[5]

The raccoon rabies epidemic was well established in Florida in the 1950's, in Georgia by the 1960's, and by the 1970's in South Carolina. It is not understood why the problem has not spread as rapidly to the west as to the north and east.[4] It could be related to translocation of raccoons from Florida into Georgia and South Carolina[9] by raccoon hunting clubs although it is doubtful such shipments have been restricted to these 2 states. Further, the location of the affected counties suggests an extension.

It should be noted that reported data are imprecise indicators of the presence of rabies in wildlife species[3,4,11,13-15,26]. Although few studies have explored the reasons for this, it has been demonstrated that distance from the suspected case to the laboratory is a significant factor.[13] Apparently, conveniently located laboratories encourage submission of specimens. It has

Figure 3. Counties in South Carolina Reporting Rabies in Raccoons, 1972-1979.



Shaded areas indicate affected counties.

Pioneers in Medicine
For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine. Some of our better known products are Lopurin™ , Ru-Tuss® and Ru-Vert® . This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K® • TWIN-K-CI™



For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin – Pramoxine HCl – Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications.
See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.





For Potassium Supplementation Improved Compliance...

TWIN-K®

Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement

- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.
  The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

In Cases with Chloride Deficiency...

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.



F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme ½ ounce (15 gm) tubes NDC 0524-0026-51
F-E-P Creme Plain ½ ounce (15 gm) tubes NDC 0524-0025-51
Federal law prohibits dispensing without a prescription.
July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16
Federal law prohibits dispensing without prescription.
February 1980

TWIN-K®

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz) NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.
July 1980

TWIN-K-CI™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbital and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-CI is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-CI may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-CI be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-CI is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-CI taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes:

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-CI are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

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been suggested serologic surveys are more sensitive than case reports as indicators of the presence of rabies virus in a raccoon population.[4] That review demonstrated the prevalence of titers was greatest in areas where rabies was epidemic, lowest in areas with only sporadic cases, and intermediate in endemic areas. Judging from the history of the movement of rabies in raccoons in Georgia, Florida, and South Carolina it may be deduced that the disease will continue to spread gradually across those portions of Alabama with large raccoon populations and, eventually, into surrounding states. It has been suggested that rabies probably will spread throughout the entire range of the raccoon's distribution.[21] It also has been reported that the raccoon population is less dense in northern Alabama than in the southern part of the state.[10] Whether this difference will prevent the entire state from becoming involved is unknown. Also based on history, infected areas will continue to have a problem with rabid raccoons for years to come, even though the actual numbers may diminish. Removal trapping appeared to be effective in populated areas and near recreational facilities.[15] This should not be attempted unless the personnel are well trained and have been immunized against rabies.

Dogs appear to be the domestic species most likely to be exposed to rabies virus by raccoons. This study revealed that 42% of the rabid raccoons studied had fought with dogs, not too dissimilar from the 34% found by Georgia workers.[6] A dog rabies epidemic in Hillsborough County, Florida in 1955 is felt to have started with a dog that had caught a rabid raccoon.[3] It has been unusual for rabies outbreaks in dogs to begin in this way. Following the increase in reported rabies cases among raccoons in 1978 and 1979, rabies was reported in 8 dogs in Alabama, all of which were from 2 counties which also reported rabies in raccoons for those years.

The April peak in the monthly distribution of raccoon rabies cases corresponds with the increased activity and breeding season in Alabama raccoons.[10] In Georgia, cases also consistently peaked in April,[6] and cases from the panhandle and north Florida showed a definite peak in March whereas there was no seasonal pattern to cases from south Florida.[1] All 3 of these coincide with the breeding patterns of raccoons in the respective areas.

Raccoons appear to be 10 times as resistant as skunks and 1000 times as resistant as foxes to artificial infection with an isolate of rabies virus from a fox salivary gland.[22]

Raccoons shed virus in their saliva with a fair degree of regularity following experimental infection. Seven of 11 shed virus after exposure to a fox isolate in one study with 2 of these shedding at least 10^3 mouse intracerebral (MIC) LD_{50} per 0.03 ml. of salvia.[22] When a raccoon isolate was used, all 9 raccoons shed virus with a mean titer of 10^4 $MICLD_{50}$ and a low of $10^{2.8(11)}$. Another 23 naturally infected raccoons had a mean of $10^{4.9}$ $MICLD_{50}$, varying from $10^{2.8}$ to $10^{6(4)}$.

The behavior of the cases observed in Alabama is comparable with other observations in that rabid raccoons do not appear outwardly aggressive to humans.[11,20] In Florida, only 1 out of 31 raccoons was aggressive and the majority of people exposed to raccoon bites had approached the animals, thinking they were tame.[11]

Another report from Florida stated that none of 38 rabid raccoons were aggressive in nature and they only attacked persons or dogs who approached the raccoons that had wandered, in daylight, into yards or along streams and highways.[3] These same authors felt the nonaggressive nature of rabid raccoons resulted in underreporting.[3,11] In Georgia, a study of 570 rabid raccoons revealed that 39% were found in yards during daylight, and 34% were fighting with dogs. Forty-seven percent of the Georgia raccoons displayed some form of aggressive behavior.[6]

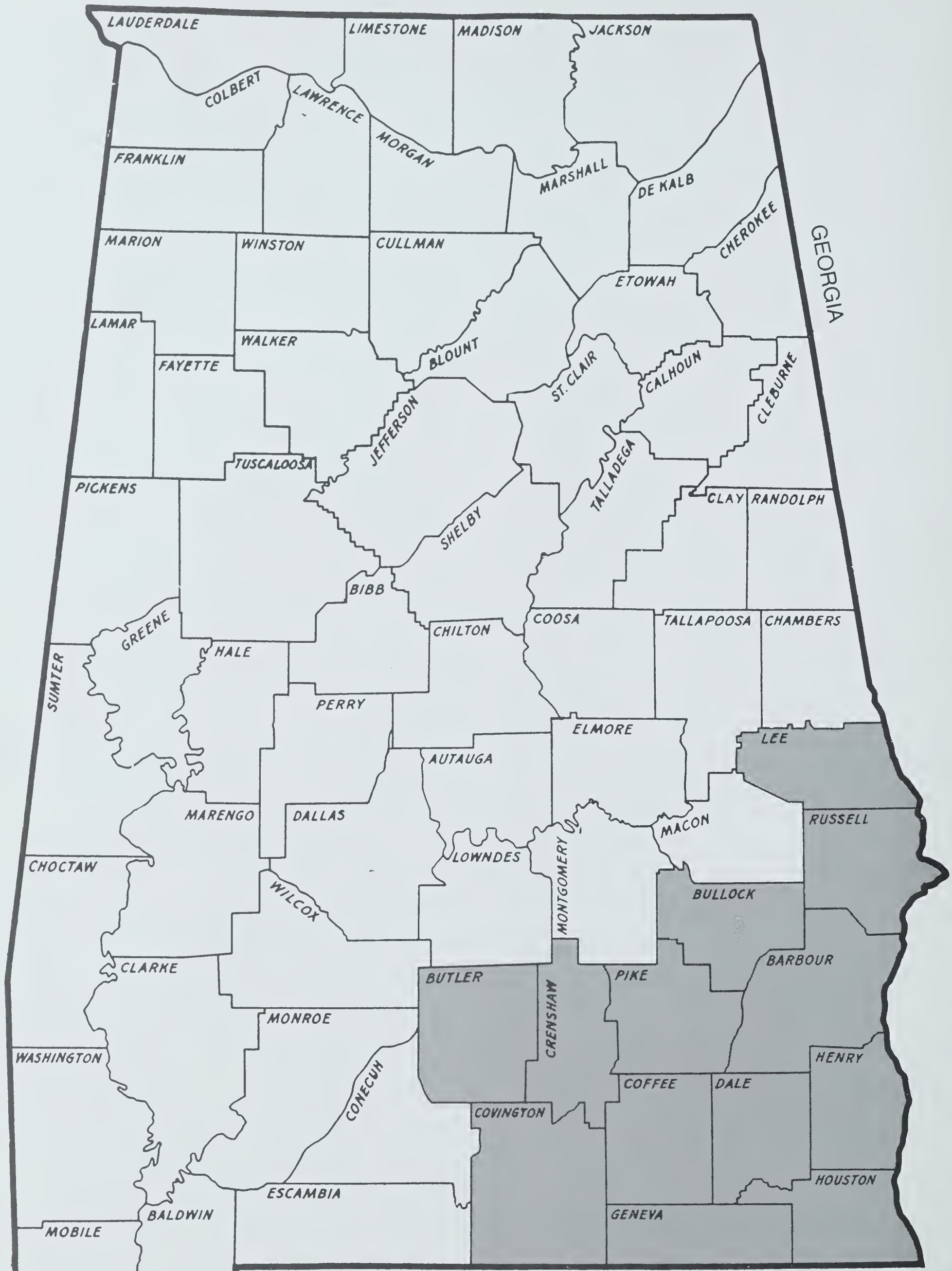
In Alabama, bites and scratches occurred when people approached raccoons which either were fighting with, or cornered by, dogs. A rabid raccoon found near farm buildings was quiet and nonaggressive, ignoring livestock, fowl, and pets.[18]

It has been estimated in Florida that 5 people per 100,000 are bitten or scratched annually by nonrabid raccoons.[15]

One experimentally infected raccoon showed restlessness which developed into aggressiveness. The animal then became friendly with incoordination progressing to paralysis and death.[18] This progression from aggressiveness to paralysis and death also was seen in a naturally infected raccoon that became sick after 39 days of captivity.[4] This progression could explain the clinical discrepancies found in various reports.

It does not seem, however, there is a direct correlation between aggressiveness and human exposures, for one pet that was aggressive over much of a 10 day course resulted in 8 persons being vaccinated.[27] Conversely, a nonaggressive raccoon kitten taken to a schoolroom resulted in vaccination of 51 persons.[28] Human exposure is related more to actions of man than to actions of raccoons, for example in Georgia, over half of the raccoon bites resulting in antirabies treatment were provoked bites.[30] Maintaining wild animals as pets produces quantum increases in exposure rates.[23]

Based on serologic data, there is a suggestion that infection in raccoons may be more prevalent in males than in females.[10,15] This is believed to be related to fighting among males during the spring breeding season. This was true for clinical cases of rabies in Illinois skunks in one report[24] but another reported a predominance in females.[14] The predominance of males in this report could be an artefact since male external genitalia are more readily apparent to a casual observer.



Shaded areas indicate affected counties.

Figure 4. Counties in Alabama Reporting Rabid Raccoons, 1961-1980.

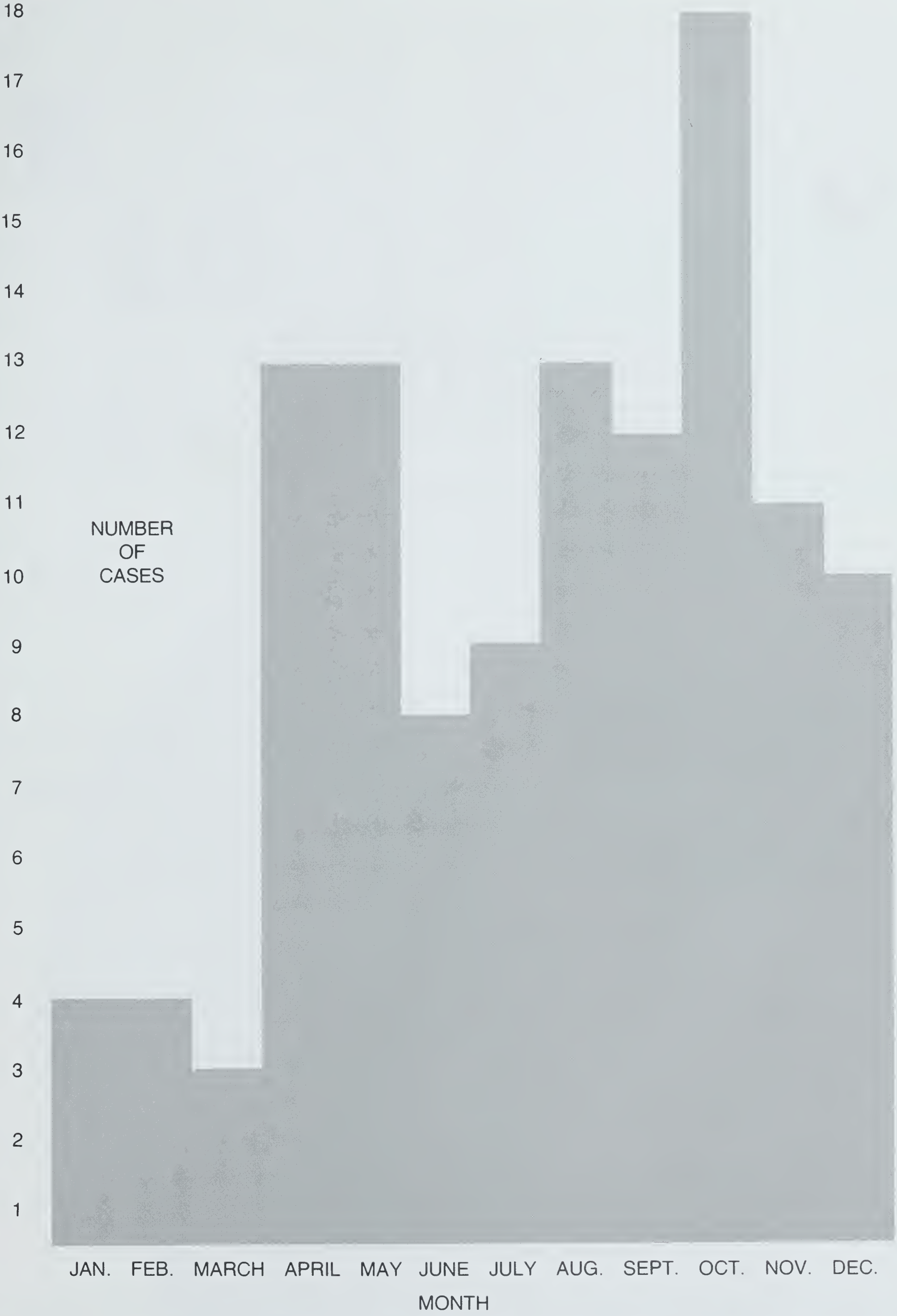


Figure 5. Monthly incidence of 116 reported rabies cases in raccoons in Alabama, 1961-1980.

Fifteen of 25 Alabama residents who were vaccinated for rabies as a result of exposure from rabid raccoons did not report any bites, scratches or obvious lesions, in fact, only 3 had bites. Under criteria established by the Alabama Department of Public Health,[12] only 4 of the 25 vaccinated persons should have received rabies vaccine. No case of human rabies has been traced to raccoon exposure.[21] An Illinois study reported 6 of 12 raccoon cases resulted in human exposures with 21 persons vaccinated, a ratio of 175 persons vaccinated per 100 raccoon cases.[23] In Georgia, there annually were 0.39 persons per 100,000 residents who received antirabies treatment because of raccoon exposures.[30]

Two groups that would seem to be at unusual risk of exposure are trappers and raccoon hunters. The 2 positive among 76 trapped raccoons tested here is consistent with the 1 of 83 found among trapped raccoons on Tyndall AFB, Florida,[15] 6 of 28 specimens collected by trapping and road kills during an outbreak in Palm Beach Co., Florida,[17] and 2 of 165 translocated raccoons.[9]

The threat of human exposure from the practice of keeping wild raccoons as pets cannot be minimized. As an example, a recent report described two incidents in South Carolina where exposure to pet raccoons with rabies resulted in a cost of approximately $10,000.[16] A single rabid pet raccoon in Florida resulted in a minimum estimated cost of $21,624.[29] Newspaper accounts reveal that the practice of keeping pet raccoons still is common in Alabama, and 1 article reported that a wild raccoon kept as a pet was not dangerous because it had been vaccinated against rabies.[8] Veterinarians who contemplate vaccinating wild raccoons should consider that exposure prior to capture is a possibility and that information does not exist on whether antirabies vaccine will abort incubating infections in exposed raccoons. Further, no rabies vaccine is licensed in the U. S. for use on nondomestic species.[25]

Raccoons from Alabama should not be relocated within the state or imported to other states. Rabies was confirmed in 2 raccoons shipped from Florida to North Carolina with interstate health certificates.[9] These were from 2 separate shipments consisting of 223 raccoons. Such practices can only hasten the spread of rabies in raccoons and increase the potential for human exposure, especially since stocked raccoons can be expected to move many miles after their release.[10]

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MEDICAL ETHICS AND SOCIAL REALITY

The Jerome Cochran Annual Lecture
By James S. Todd, M.D.
Member, Board of Trustees
American Medical Association
Mobile, Alabama
April 24, 1981

It is a distinct privilege to have been invited to give this annual discourse, particularly since this year commemorates the 150th anniversary of the very remarkable Dr. Cochran's birth.

A distinguished group of physicians have occupied this podium in the past and by scanning the topics of previous lectures one sees a microcosm of the history and development of medicine. Initial lectures asked why, what and were generally descriptive. Then science exploded, and one began to hear of the triumphs and conquests of medicine. Early in the 1960s, however, the flavor of the lectures changed from pure scientific to, if not socio-economic, at least a look at the moral imperatives and interactions of the profession with society. A trend that is and should continue in the great tradition of Dr. Cochran. I note the names of many great physicians, some of whom were my mentors, and I am proud and honored to add my humble contribution to this tradition.

Today I come to speak to you about the New Principles of Medical Ethics adopted by the American Medical Association almost a year ago. As you know, they represent a rather substantial verbal change from the previous version, and this change has aroused considerable discussion, often misunderstanding, and sometimes downright hostility.

Future Shock

Obviously, we are most comfortable with what we know best, and never completely comfortable with change. Alvin Toffler in 1970 wrote a book called *Future Shock* that rocked the conventional wisdom about the effects of change on society and individuals.

Toffler defined Future Shock in several graphic ways, among which were: The human response to overstimulation, the dizzying disorientation brought on by the premature arrival of the future, the shadowing stress induced in individuals by subjecting them to too much change in too short a time.

In short, change may be defined as the process by which the future invades of lives. Change is inevitable. No one would deny it as a part of our profession, and it certainly is a part of our contemporary society. Unfortunately, with the pell mell pace of society, we have little time to think about change, but the rest of our lives to live with it!

We cannot allow it to pass us by. Many things are going on in the world around us, we may not like them, we need not participate in them, but it is essential we recognize and understand them as well as observe the rights of those who do espouse change. If we don't, we will be in a perpetual state of confusion and paranoia trying to figure out what is going on.

I suppose, the kindest description of our contemporary scene is to say we live in interesting times. Times where scientists study less our origins and more what our finish is to be. Times when childhood begins with youngsters asking where they came from, and ends with them refusing to tell anyone where they are going. Times where government intervention makes it possible for us to have diseases we couldn't otherwise afford. Indeed, times where division and dissent exceed agreement and cooperation.

Other Times and Challenges

Well, every generation of Americans have faced interesting times and their challenges, but what makes the present situation so difficult is that the challenges are not clearly defined. In times of war, it is pretty easy to know who your enemies are. In a great depression like the thirties, its pretty easy to know you are bankrupt. But what we have now is much harder to deal with.

We have problems like balloons; you can't get a handle on them. Energy crises that come and go without warning or explanation. Not a real depression, but an economic zig-zag that no one really understands. Not a war, but a sense we are not in control of our own destiny. Indeed, we are not quite sure who is. Its not that we've lacked challenges in our interesting times, its just we're not entirely sure what they've been or whose been responsible for them.

And so, seeing no clear pattern to their existence, Americans have concentrated on self development. Fortunes have been made on books telling us *How To Be Our Own Best Friend, How To Improve Our Bodies, How To Look Out For Number One,* and even how to find our own *Erroneous Zones.* The bottom line has become a worship of individualism, and as a result our tradition of pluralism is under strain. Each group, each person, pushing for themselves.

For generations we have cherished diversity by encouraging the growth of different groups, different individuals, ethnic, economic, occupational, religious, professional. Yet now we begin to see the dangers for America is no longer so diverse, as it is split assunder into innumerable special interest groups all free to express themselves and all trying to establish their own rules for the game.

Policies of Immobility

As the demands of individuals increase, fewer of them can ever emerge fully satisfied by the results. Frustrations multiply, further pressures are applied, and positions become fixed and uncompromising and conflict is inevitable. With so many vigorously trying to promote their special interest, the politics of activism become the policies of immobility. Unable to satisfy anyone solutions are delayed or compromised and we drift, unable effectively to deal with energy inflation the environment or indeed any other problem of national significance.

The alternatives in such a society are limited, and unfortunately usually defaulted one way or another. The real crisis is one of adapting to a world where there are no simple solutions to our problems, to a world where resources are becoming limited, where not everyone agrees on priorities, and to a world where those unwilling to accept or participate in change are soon passed by and forgotten. Traditionally, the health care system because of its special purpose has remained detached from societal change, believing health care was an end in itself.

Now it appears that such an attitude may be inappropriate. Technological progress doesn't occur in a vacuum, and if it develops without corresponding social educational and humanistic advances the system is in trouble. If there is any tragedy in the current health care system, it is that by virtue of phenomenal technological advances, the medical profession is no longer able, by itself, to satisfy the magnified expectations of the public. There are many legitimate demands now being made upon the physician beyond the traditional bounds of health care. They cannot be ignored, nor can they all be met.

Limited Resources

Ben Johnson said in 1770, "Nothing so concentrates a man's mind so much as the knowledge that on the morrow he is to be hanged." This is indeed a time for peculiar paradox for the medical profession. Little wonder the average physician is incredulous when after been taught to do all things possible for all with whom he comes in contact, and in so doing having produced the finest health care system in the world, he faces increasingly severe criticism from all sides.

Yet, perhaps some of this criticism is warranted, for bent on producing the best for all, and of course aided by misguided social programs, the physician has until very recently ignored cost and priorities. Now we are told resources are limited and increasing sectors of the public are saying enough of this open ended spending.

To some degree, it must be admitted that this is not entirely without justification. The fact is that health is already the most heavily subsidized industry of this country, and is the second largest. Health care utilizes 10% of the entire federal budget and 9% of the gross national product. Little wonder that the public sector has increasing interest in how these resources are spent, and will continue to attempt to gain control over them.

Three things should be self-evident, first, we cannot do everything scientifically possible for everybody everywhere all the time, second, that we must decide, or somebody must decide, what we are going to do for whom and when and third we must realize that health care effects only a small percentage of those activities leading to good health. Parenthetically we should be pleased that the American public spends almost as much on health care each year as they do on tobacco, alcohol, and cosmetics.

As a result expectations are changing, and now it is not that the providers of medical care will try to do society ill, it is that they will try to do too much good. Health care can expand infinitely and can legitimately absorb every dollar that society is willing to make available for it. And we also know how to practice a standard of medicine which if extended indiscriminately would be far more expensive than this country could or should pay, and certainly far more expensive than the meager improvement in health would justify.

Attacking The Establishment

Ivan Illich in his latest social blast called *Medical Nemesis* reaches the startling conclusion that the medical establishment has become a major threat to health. He sees that society has transferred to physicians the exclusive right to determine what constitutes sickness,

who is or might become sick, and what shall be done to such people. This, he maintains, has resulted in the ritual for example of the yearly but probably unnecessary physical exam, the long term maintenance of the hopelessly ill, the medicating of any and all conditions, and the production of medicine as a commodity which if only extended far enough should assure good health.

It is this medicalization of society which ends up spending 30% of the budget on 10% of the people, increases the use of tranquilizers ten times that of alcohol, and in the end deprives the citizen of his ability to understand or determine his own medical future, not infrequently forcing courts to make medical decisions.

Illich concludes by saying:

"The level of public health corresponds to the degree to which the means and responsibility for coping with illness are distributed among the total population. This ability to cope can be enhanced, but never replaced by medical intervention. The society which can reduce professional intervention to the minimum, will provide the best conditions for health."

Think about that for a moment, for as we study more and more about less and less it will not be too much longer until no one in this country will be pronounced totally healthy. Without much doubt we have been too successful in the development of medical technology. Should we, for example, marvel over the transplantation of a heart, when children in the inner cities are dying of diseases for which they could be immunized.

It would be reassuring to assume that technology is impersonal in development, and therefore justified at all levels, but, like it or not, every new program reflects and influences values, ideas, theories and beliefs, and as medical sciences have advanced the related social and ethical issues have been multiplied far beyond any ones expectation. Apparent then, is the conclusion that the medical profession can no longer function independently from society, as much as we might like to think a science should. We do not and cannot operate in a vacuum.

Important Distinction

What every professional needs to bear in mind is the distinction between a profession and a function. The function may be eternal, but the profession is temporal and can be destroyed or destroy itself very rapidly. All professions, even though seemingly ancient and continuous have changed. It is time our profession came to face this reality, squarely and unafraid because reality tells us there is a whole array of alternative health professionals, chiropractors, optometrists, podiatrists, psychologists, whom the public has chosen to license and utilize.

Ignoring or trying to reject them is no longer feasible, or legally possible, and we should find ways to accommodate them into the health care system. We might even find them helpful, or the public might more clearly see their failings. Reality tells us there is incompetence within the profession, not in large quantity but enough to give our critics grist for their mills. And reality tells us there are people out there who are not getting the care they need because of inaccessability or inability to afford it, and that health care costs continue to rise more rapidly than even we can justify. These are the pressing issues which the profession must address with all the vigor it possesses for these are the issues upon which the very future of medicine will be determined.

Special Interests

But having said all of this, there are additional problems first, this huge press for change by the government and the public never has been, and is not now being guided by anyone who has any perception of the consequences of their actions and decisions.

Secondly, and perhaps even more importantly, there is no real leadership in the health care system either. Only an array of special interest, each determined to promote its own cause at the expense of others. On our present course, inexorably there will be a public take over of medicine, and while many of these events are perhaps justifiable, consequences of our modern societal attitudes, more often than not they are the results of vacuums created or tolerated by the profession itself.

The immerging great problem of our time is not how to produce change, but rather how to direct it so that it does not overwhelm us. The profession is probably facing its last opportunity to provide the kind of leadership upon which our credibility and our very survival will depend. How we deal with all these pressures upon us may well determine whether continue as a profession, or are reduced to the status of provider.

No longer is it enough to limit our focus solely on patients and technological development. Other things have been happening within the profession and society which require our attention. In 1975, the Supreme Court of the United States handed down the Goldfarb decision which held that the learned professions were not exempt from provisions of the Sherman Anti Trust Act. The Sherman Anti Trust Act prohibits interference in trade and commerce in groups organized or acting to prevent economic gains by others.

With this decision, long before the FTC investigation of the American Medical Association, and long before the chiropractic suits were filed, the Judicial Council of the American Medical Association, one of whom's functions it is to assure conformance with law, began to worry about some of the provisions in the then current 1957 Principles of Medical Ethics. Quite correctly, they found provisions that were in conflict with contemporary laws, and also some that were in conflict with current usages within the profession itself.

Consequently, at the 1978 Annual Meeting of the American Medical Association House of Delegates, the

Judicial Committee submitted a proposed revision of the Principles for the stated purpose of: Modernizing the language, eliminating gender, and reaching an appropriate stance between professional principles and contemporary society.

Opposed To Change

The House of Delegates was not happy with that revision, indeed sentiment seemed to be against any change, but the House did appoint a committee to study the matter further. Realizing how little they knew about ethics, the first meeting of the Ad Hoc Committee was devoted to a session on the development of ethics.

The session was led by a pure ethicist without special medical expertise who examined the history and purpose of ethics. Next the Committee circularized the State, County, and Specialty Societies asking for their input in the whole problem of Medical Ethics. In addition the Committee met with the Judicial Council, Legal Council and anyone indicating a desire to appear and make a statement, and many did.

By the end of six months the Committee realized it was far from completing its work, and submitted an interim report at the interim 1978 meeting which concluded in part: 1. A code of ethics is desirable for the guidance of the profession, 2. The medical profession was no longer considered the sole guardian of the public health, 3. That physicians needed to recognize multiple responsibilities (of course first to the patient, but also to society as a whole, to allied health professionals, and for the first time to themselves), 4. Gender had no place in statements of professional ethics and 5. Neither the proposed revision of the 1957 version of the Principles were really adequate to express the role and goals of the profession in the 1980's.

With the exceptance of this report by the House of Delegates, the Ad Hoc Committee believe the House expected a completely new set of Principles. And so, the Committee continued its work. At the Annual 1979 Convention, the Committee submitted the first of several final reports. This report was a consideration of ethical development in which the Committee concluded that morals on those general principles of accepted behavior which applied to all segments and individuals in society.

Ethics, on the other hand, are specific application of these more general principles to a particular segment of that society. And therefore, there are no Principles of Ethics unique to the medical profession, but rather a unique application of these more general principles. As morals change, and they do, so must ethics. Ethics evolve from human experience, telling one what ought to be done, defining boundaries of honorable behavior, and the limits beyond which behavior is unacceptable. Clearly ethics must conform to the law, more often aspiring to loftier levels, but under no circumstances can they be contrary to the law.

Society Defines Purpose

An additional, sobering but nonetheless valid conclusion was that the profession does not exist for itself, but for a purpose. Increasingly that purpose is going to be defined by those who commission our work, that is society. To ignore that fact, and to continue the all prevading paternalism of the past is to invite never ending conflict without anyone being the better for it.

And so then, two main issues were left. Was it appropriate to make any change in the Principles of Medical Ethics? By this time it was clear, the 1957 version had some definite legal difficulties, and since previous changes in medical ethics occurred in 1847, 1903, 1912, 1947, and 1957, there seemed to be ample precedent for change when indicated.

The second issue then was how much change? Should the Principles be altered only to relieve the current legal pinch in Principle 3. having to do with solicitation, and Principle 5. having to do with the voluntary association of unscientific practitioners, or should the profession recognize the need to modernize and respond meaningfully to changes within the profession as well as within society.

Like it or not, changes within the profession having to do with methods of practice and compensation left Section 6 and Section 7 totally inappropriate in today's practice. Alternative health styles, alternate methods of practice, the appearance and use of limited licensed practitioners required that we look beyond statements of etiquette towards statements of right and responsibilities.

There was great danger in making no changes because the profession and its Principles would be out of step, it would perpetuate concepts no longer valid, and it would further heighten the legal pressures with little chance of prevailing, and for no useful purpose. There was equal dangers in making limited changes for it would be a cop out, and would remove important concept without replacement by any valid contemporary principles. In addition it would be a patchwork document of short survival before further revision would be required.

Standards of Aspiration

Taking all this into account, the Committee wished to reach an appropriate position between professional principles and social reality. They wished to produce standards one might aspire toward, rather than rules requiring adherence. Standards that would maximize individual discretion, and at the same time maximize individual accountability which is as it should be for the hallmark of a professional is the willingness to accept individual responsibility for professional actions.

The Committee believed it important to emphasize the multiple responsibilities of a physician, that it was

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

		Given Tegopen® *(cloxacillin sodium)*	Given *penicillin V-K*
Staphylococcus aureus	(78 patients)	39	39
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Treatment failure at one week		0	18 (47.4%)
Staphylococcus aureus* and *Streptococcus pyogenes	(9 patients)	4	5
Returned to clinic at one week		4	5
Treatment failure at one week		0	2 (40%)
No initial bacterial growth All 14 healed, regardless of which antibiotic was administered.	(14 patients)	9	5
Beta-hemolytic *Streptococcus*	(1 patient)	0	1
TOTALS:	**102 patients**	**52 patients**	**50 patients**

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus,* 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes,* and 1% beta-hemolytic *Streptococcus*.‡
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.
- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

‡The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

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PRECAUTIONS:
The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

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ADVERSE REACTIONS:
Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:
Adults: 250 mg. q.6h.

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INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.



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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

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essential that any Principles not merely be an accommodation, but a strong articulation of the goals of the profession. And lastly the Committee wished to produce Principles broad enough to be all encompassing and withstand change.

The final product presented to the House of Delegates in July of 1980 was a distillation of all these concerns and consisted of seven broad, clean statements, strong in simplicity, emphasizing the dedication to, and the primacy of the patient, all the while recognizing professional and social reality. The emphasis is on rights, responsibilities, and for the first time appears the word honest.

Continuum

These statements are a logical continuum beginning with a preamble which established broad areas of responsibility for all physicians and reaffirms the belief that ethical standards are for the benefit of the patient. The first Principle is concise statement of mission emphasizing the magnitude of a physician's commitment and how it shall be met, specifically "A physician shall be dedicated to providing competent medical service with compassion and respect for human dignity."

The second statement is a clear mandate for self discipline, calling on the precepts of fairness and honesty toward all. The deceitful are to be exposed the impaired helped, and the unscientific educated "A physician shall deal honestly with patients and colleagues, and strive to expose those physicians deficient in character or competence, or who engage in fraud or deception.

Principle III. Says that society should expect obedience to laws properly enacted, but the dedication of a physician requires lawful disagreement and attempts of modification of those regulation inimicable to sound patient care or contrite to accepted moral behavior. "A physician shall respect the law and also recognize a responsibility to seek changes and those requirements which are contrary to the best interest of the patient.

Principle IV. Affirms that due process is constitutionally guaranteed. No one has, or should have, the ability to abridge the legally given rights of another. Similarly, the professional relationship is predicated on trust and the confidentiality of that relationship should be breached only when required by law. "A physician shall respect the rights of patient, of colleagues, and of other health professionals, and shall safeguard patient confidences within the constraints of the law".

Principle V. Says that the effective implementation of a physician's mission depends upon the application of sound scientific concepts, the ability of the public to make intelligent health choices, both as to procedure and person, and the liberal use of consultation with other health care professionals as may be indicated. "A physician shall continue to study, apply, and advance scientific knowledge, make relevant information available to patient, colleagues, and the public, obtain consultation and use the talents of other health professionals when indicated."

The sixth statement indicates that within the framework of these principles, the physician is entitled to certain rights which should not be denied if individual talents are to be developed to the fullest. Freedom of choice both by physician and patient is essential "A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose, whom to serve, with whom to associate, and the environment in which to provide medical services."

Principle VII. Recognizes that citizens should participate in community and societal affairs. By virtue of special training, a physician, as a citizen, may have additional value and should recognize that possibility. Whether to exercise that citizen's responsibility always has been and should remain an individual decision. "A physician shall recognize a responsibility to participate in activities contributing to an improved community."

Facing Reality

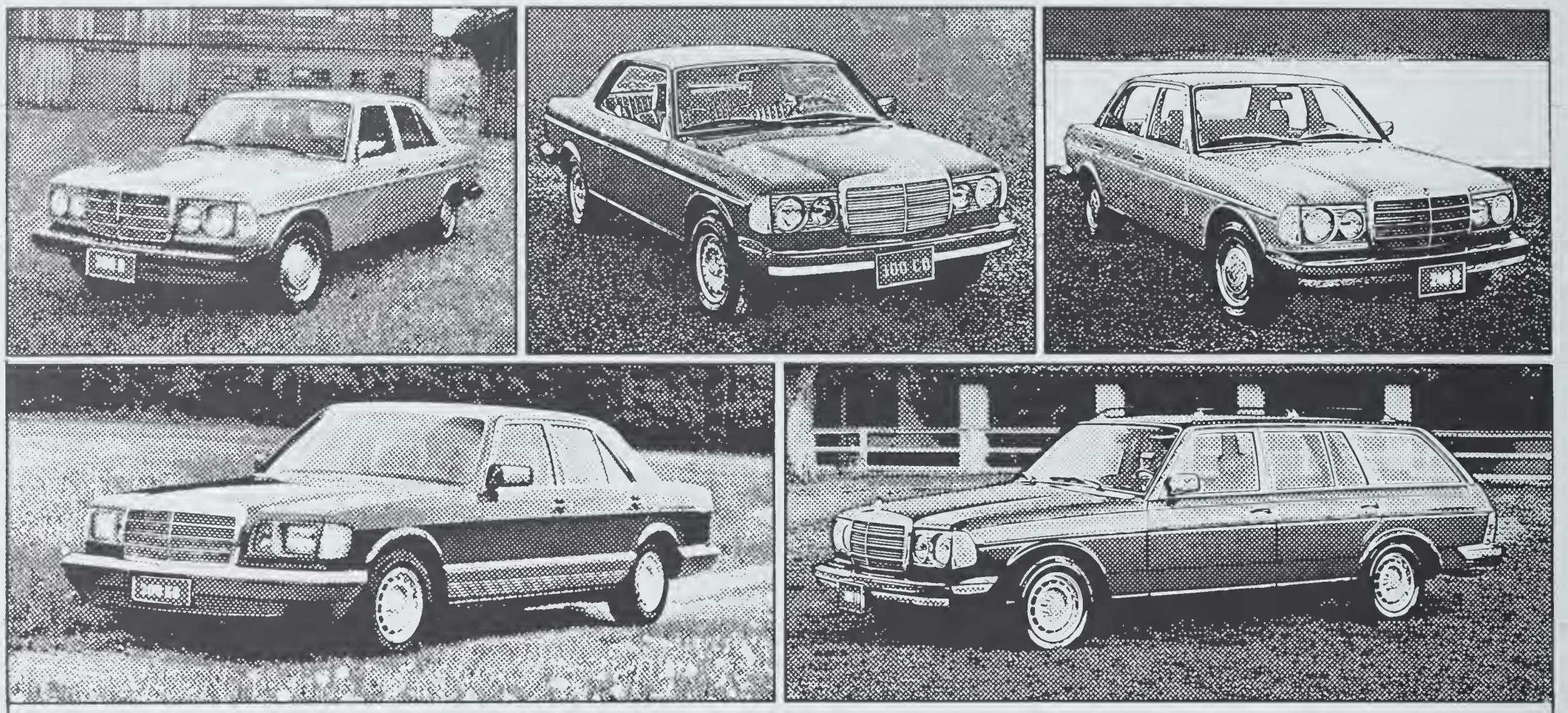
Obviously these Principles were not met with universal enthusiasm. Nothing is so difficult as to face reality when it is in conflict with longheld philosophical views. Yet as the critiques came in, no new issues were raised not already considered by the Committee, and the recurring concerns focused on areas long since abandoned by the majority of the profession.

Also, obviously these Principles will not stand alone they will be the foundation upon which the Judicial Council will base further opinions and interpretations. And finally, these Principles will require a new degree of thought by individual physicians as they try to implement these standards. And nothing is so easy as to fall back on rules and prohibitions, but whenever an act or a practice is removed from the realm of enforceable prohibition, a significant blow has been struck for freedom, and with freedom comes heavy responsibilities.

No one should expect any Principles of Medical Ethics to stand unchanged forever. Physicians must respond to social and professional reality by working with changing institutions, changing health professionals, and changing concepts. By so doing in a consistent fashion, the physician can best demonstrate a commitment to the patient, which transcends all parochial interest.

A profession so quick to accept scientific change should not be reluctant to accept the professional and social consequences of that change. These new Principles clearly and positively spell out both the natural freedoms, and the unquestionable obligations of a respectable profession.

They will challenge, as well as guide American professions in affirming their professionalism, and the dedication to those they serve.



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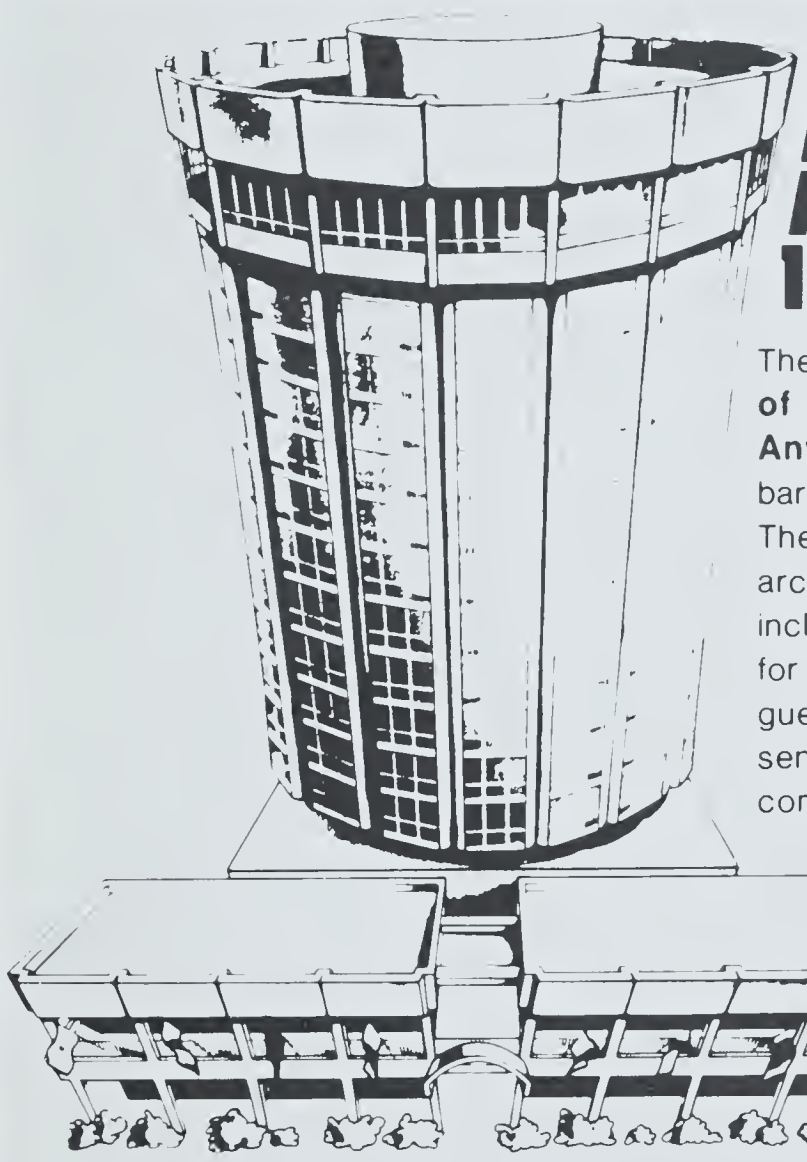
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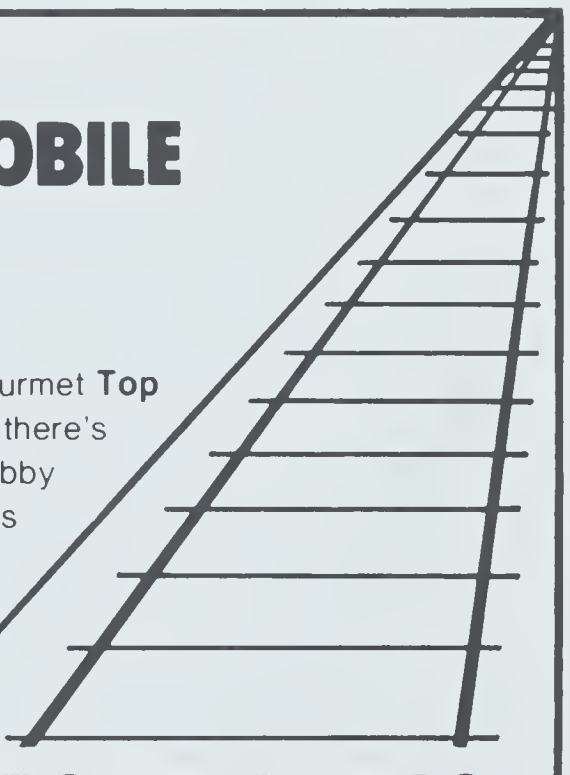


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CRYPTOCOCCAL PROSTATITIS: A PRIMARY MANIFESTATION OF DISSEMINATED DISEASE

by
E. Max Sanders, M.D. and Donald R. Stalons, DrPH*

ABSTRACT

A 64 year old male with underlying rheumatoid arthritis was hospitalized for a transurethral resection of the prostate. Histological sections of prostatic chips revealed marked granulomatous prostatitis with budding yeasts. No clinical material was submitted for culture. Direct fluorescent antibody stains for *Cryptococcus neoformans* were positive but the reports were not available when the patient was discharged in "good condition." Subsequently, the patient developed symptoms of CNS disease and was readmitted. A diagnosis of CNS cryptococcosis was made based on positive culture and antigen analysis on cerebral spinal fluid. (Key words: cryptococcal prostatitis, disseminated cryptococcosis, extrapulmonary cryptococcosis, granulomatous prostatitis)

INTRODUCTION

Cryptococcus neoformans is a fungus that is ubiquitous in nature with an ecological niche in pigeon droppings where concentrations may reach 5×10^7/gram. Infection in man and animals is thought to occur through inhalation of aerosols containing the fungus. When man is involved, pulmonary alveolar macrophages engulf the fungus and, normally, the *Cryptococcus* either fails to survive intracellularly or is contained so that the infection remains subclinical. Occasionally, disease may be produced if the organism overwhelms normal cellular defenses or if the host's immune status is compromised.

The course of the disease tends to be chronic in the otherwise normal patient but may be acute in patients with underlying immune defects. Although the primary site of infection, pulmonary lesions are typically subclin-

* Department of Pathology, N.E. Alabama Regional Medical Center, Anniston.

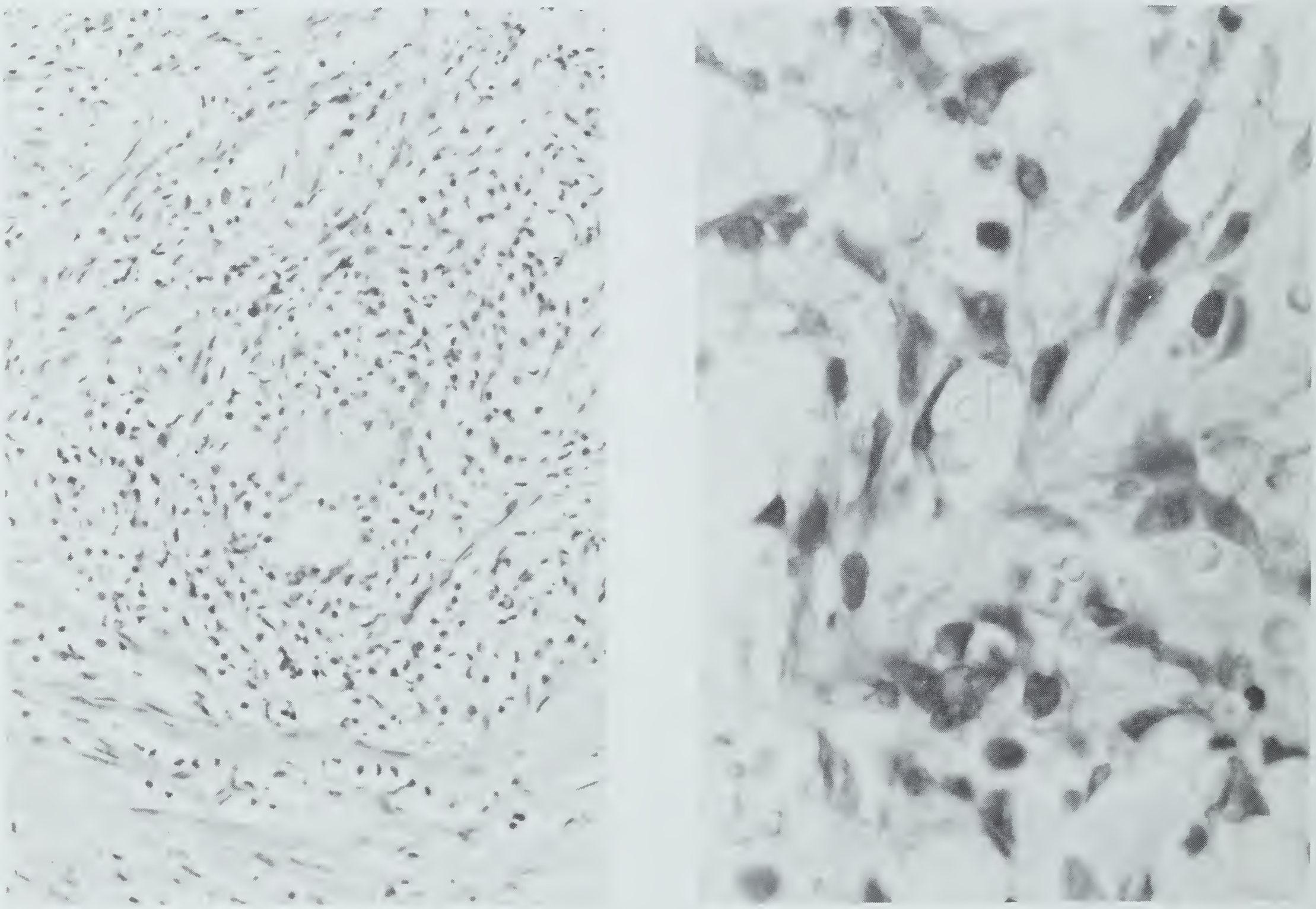


Figure 1.
Benign prostatic hyperplasia with multifocal areas of marked granulomatous prostatitis (Hematoxylin and eosin; 250X ,and 1000X).

ical even though detectable by radiographs. If not contained in the lung, the fungus spreads to the hilar nodes or becomes bloodborne thus seeding other tissues. There is a propensity for CNS involvement and detectable impairment in host defenses is evidence in over one-half of patients with CNS disease.

A review of case reports in the literature documents the involvement of many organ systems in disseminated cryptococcosis. Uncommonly, reports of cryptococcosis manifesting as prostatitis, orchitis, endocarditis, pericarditis, nephritis and hepatitis have been made.[1-6] Documentation of disease in the aforementioned instances usually occurred when other manifestations of disseminated cryptococcosis were evident; e. g. CNS involvement. We report a case of cryptococcal prostatitis in a patient with no other initial symptoms of systemic disease.

CASE REPORT

C. G., a 64-year-old white male presented to the emergency room complaining of right lower quadrant pain of 3 days duration. The pain had begun suddenly and was described as intermittent and crampy. The patient gave a history of one month duration of frequency and nocturia 2-3 times per night. He denied hesitancy but did have dribbling at the completion of his stream. It is noteworthy that 7 months prior to this admission, the patient was treated for a non-specific pneumonitis that resolved within 10 days; no residual symptoms were noted. Complaints of mild nausea and vomiting were noted but there was no history of diarrhea, hematemesis or melena. Past medical treatment for rheumatoid arthritis and hypertension were noted for which Clinoril, Deltasone, Tylenol and Inderal had been prescribed. Other portions of the patient's medical history were not contributory.

Physical examination revealed a well developed, well nourished, white male in no acute distress. Pertinent findings included a left hydrocele and a left lobe enlargement of the prostate. The abdomen was soft with no palpation or rebound tenderness. The white blood cell (WBC) count was 14,000/mm^3 with a slight left shift. Initial urinalysis showed WBC's too numerous to count with an occasional red blood cell. Cultures of voided urine grew greater than 100,000 colonies per ml of *Klebsiella oxytoca*. Other laboratory findings were within normal limits.

The patient was taken to surgery where a cystoscopy and transurethral resection of the prostate was performed. Histological evaluation of four grams of formalinized specimen submitted to the laboratory revealed benign prostatic hyperplasia with multifocal areas of marked granulomatous prostatitis (Figure 1). Budding yeast cells were noted and best seen on Gomori methenamine silver stains (Figure 2). Tissue was not available for culture but paraffin embedded sections of prostate chips were submitted for direct fluorescent antibody staining.* The patient was discharged in "good condition" on the eighth hospital day. Direct fluorescent antibody stains were reported positive for *C. neoformans*.

Two months after the TUR was performed, the patient was readmitted with intermittent but intense headache, transient episodes of dizziness and unsteadiness of gait. No focal or lateralizing neurological deficits were evident. The patient had had continuing episodes of nausea and vomiting that antedated his initial hospitalization.

A lumbar puncture was performed and revealed clear fluid under normal pressure. Routine laboratory analysis of the spinal fluid revealed 38 mononuclear WBCs, 90 mg/dl protein, 50 mg/dl glucose, negative Gram stain and negative India ink. Specimens submitted for culture and cryptococcal anitigen analysis were positive for *C. neoformans*. The patient was begun on amphotericin B therapy for disseminated cryptococcosis and responded favorably. No symptoms of recurrent cryptococcosis have been observed to date.

*Mycology Serology Branch, Center for Disease Control, Atlanta, Georgia.

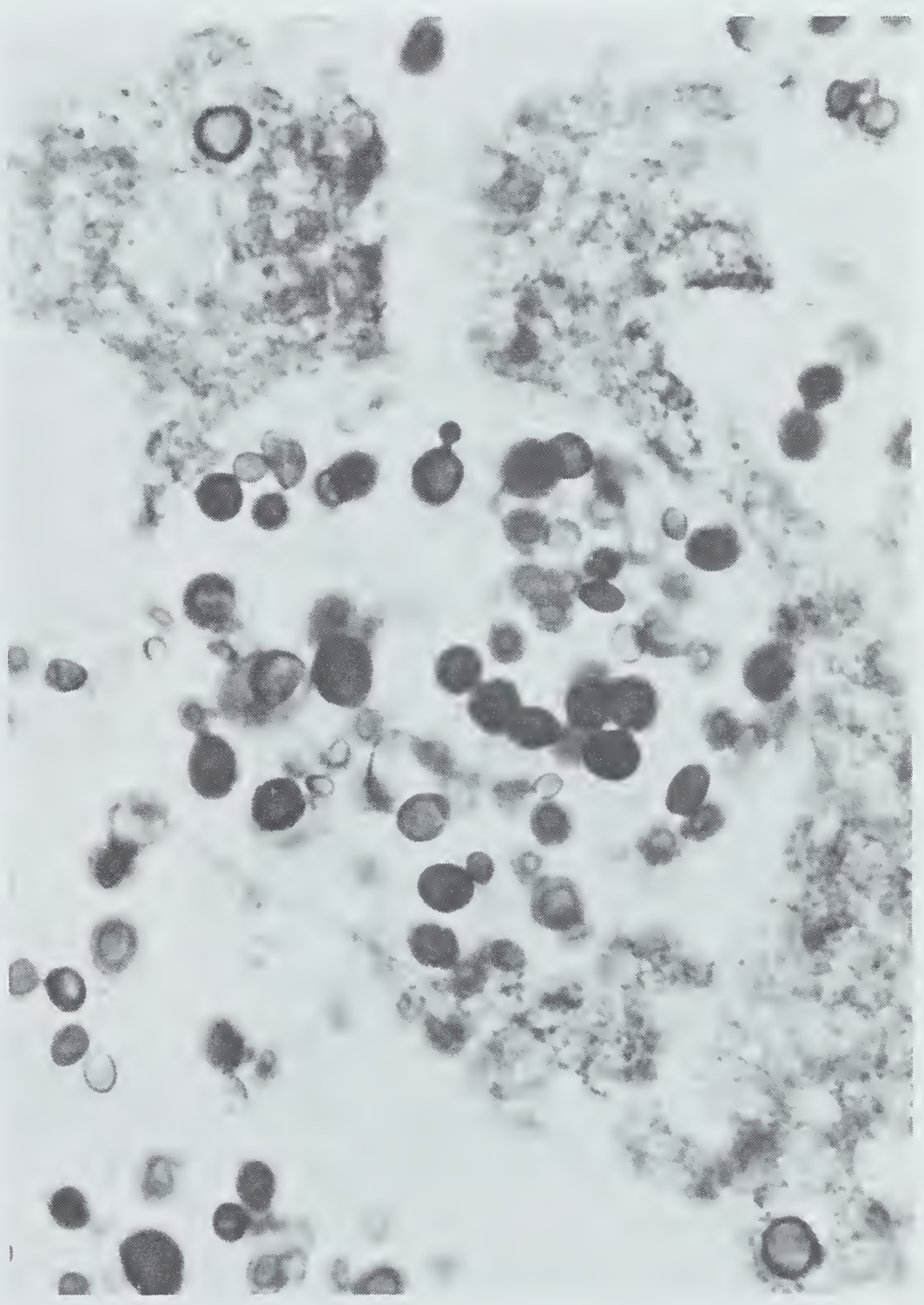


Figure 2. *Cryptococcus neoformans* in prostatic tissue (Gomori methenamine silver; 1000X).

DISCUSSION

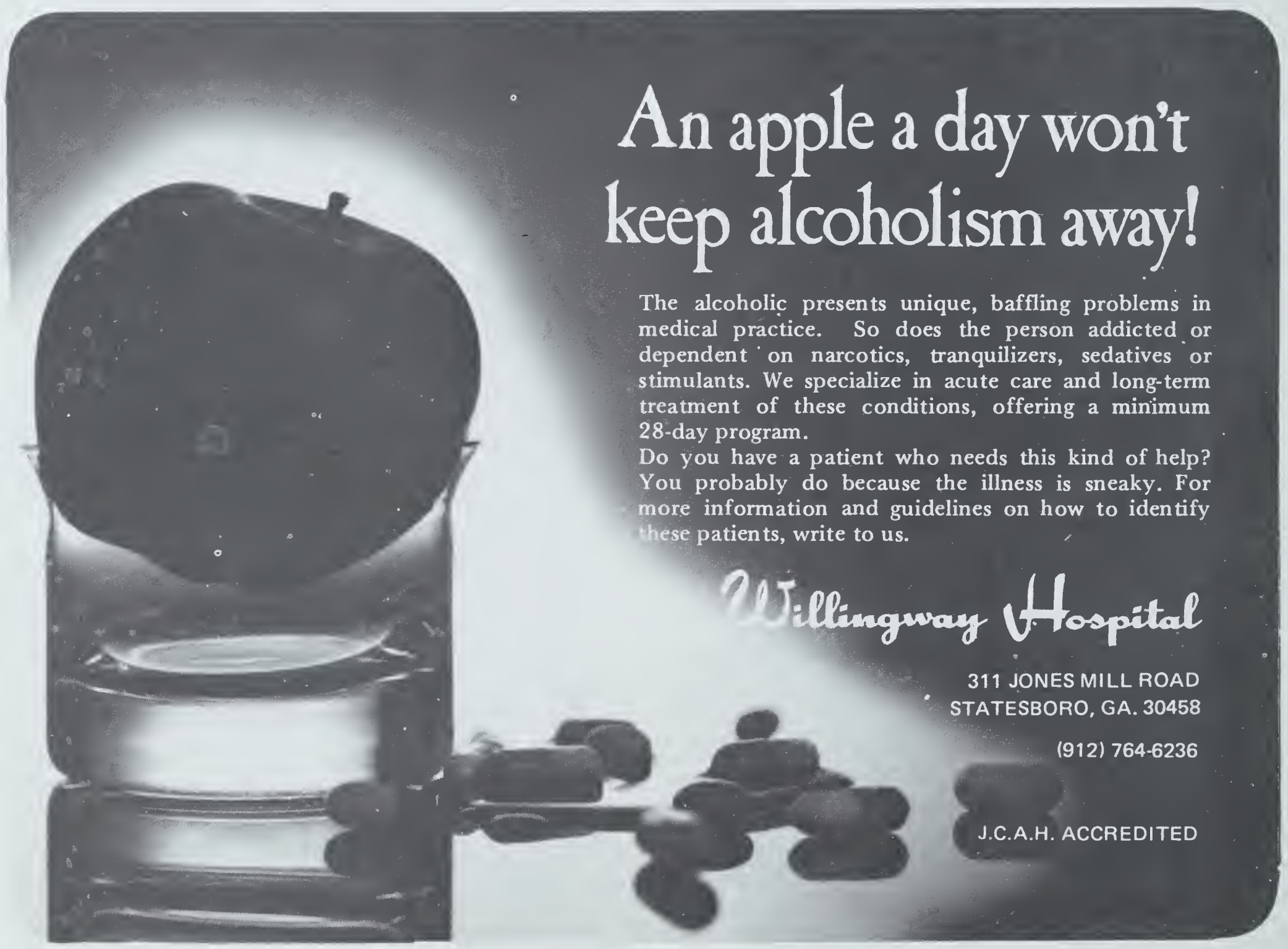
Granulomatous prostatitis due to C. neoformans has been reported in the literature[1,2,3,4], but the diagnosis was made in the majority of cases after the appearance of other systemic symptoms or at autopsy. Two cases of cryptococcosis have been reported[5,6] where prostatism was the only manifestations; a feature shared initially by the patient presented in this report. Further, a case of cryptococcal prostatitis was reported[7] where steroid therapy for rheumatoid arthritis was contributory, but other symptoms of disseminated disease were noted before cryptococcal prostatitis was diagnosed.

It is well recognized that disseminated cryptococcosis occurs and many organ systems are involved. Manifestations of the disease are varied, but the evidence of dissemination is most pronounced when the CNS is involved. Diagnostic dilemma created for the clinician when evidence of dissemination is established but symptoms of CNS disease are either absent or inapparent. The literature is not entirely clear as to the efficacy of antifungal therapy for extrapulmonary disease where the CNS is not involved, but antifungal therapy has not been endorsed.[8] A recent case reported by Heinke and Summerlin[6] illustrates the validity of not treating non CNS cryptococcosis with toxic antifungal therapy.

The case that we have presented in this report documents the need to carefully follow a patient's progress who has documented extrapulmonary cryptococcosis. Additional symptoms of dissemination became manifest in this patient for which antifungal therapy is recommended and was applied. The case also serves to document the need for a more comprehensive diagnostic look at prostatic tissues that demonstrate non-specific granulomatous inflammation. Although rare, an infectious etiology is possible in a compromised patient and should receive consideration in the differential diagnosis.

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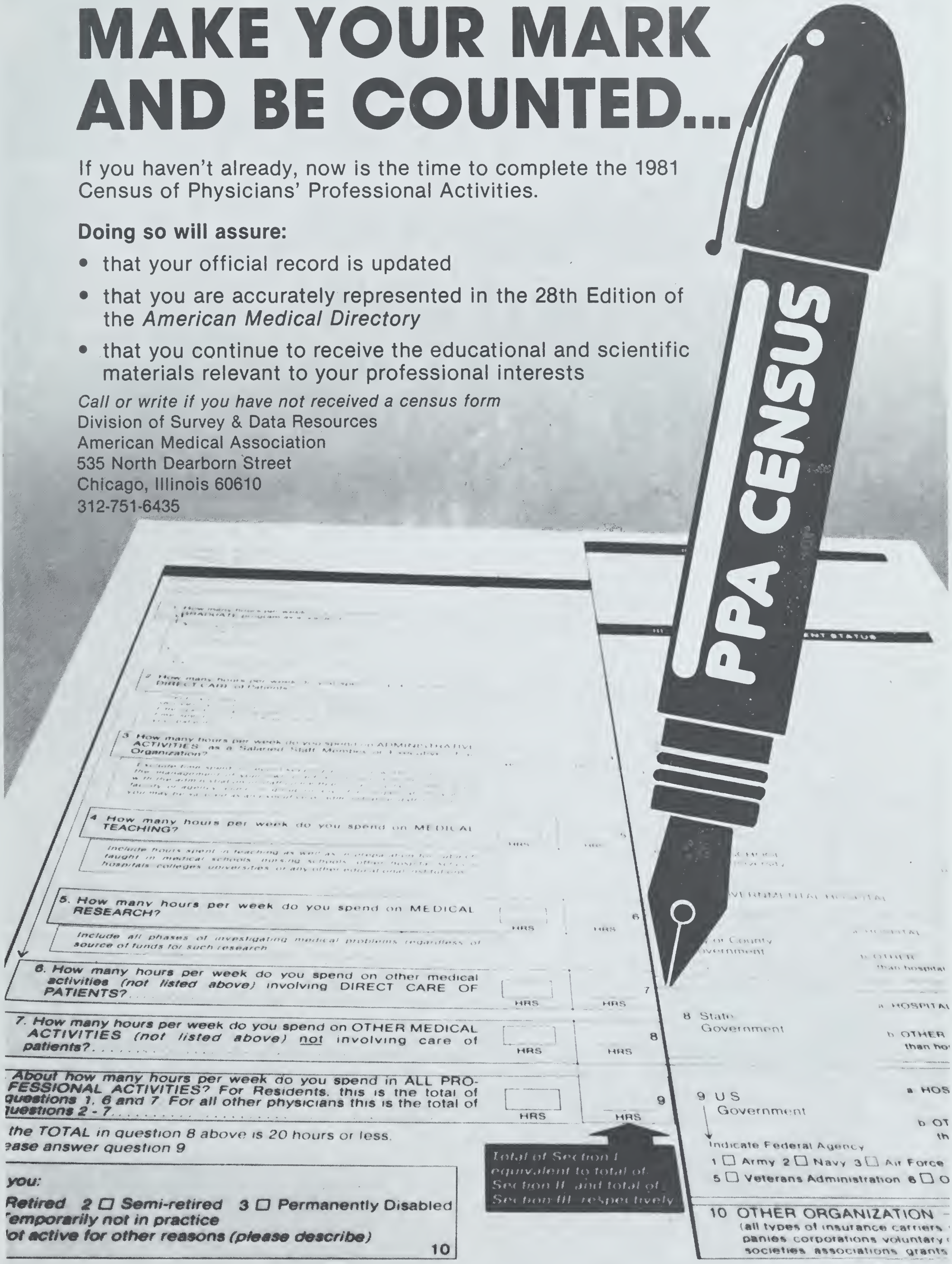
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MENIERE'S DISEASE AND HYPERLIPIDEMIA

By
William H. Taylor, M.D.

Sam E. Kinney, in a recent article in the *Journal of Otolaryngology and Head and Neck Surgery,* states: "Meniere's disease is one of the least understood diseases of the ear. The histopathologic definition of endolymphatic hydrops is well understood; however, etiologic factors are unknown. Most clinicians use some form of medical treatment to control the triad of symptoms—episodic vertigo, fluctuating hearing loss, and tinnitus."[1]

A metabolic evaluation consisting of the following four studies: a 5-hour glucose tolerance test, a lipid profile, free thyroxine index, and fluorescent treponemal antibody absorption test (FTA-ABS), are the usual procedures performed. Of 384 patients with Meniere's disease seen by Dr. Kinney, 180 had the above metabolic evaluation. The most significant finding was an abnormal rate of hyperlipidemia of 62%. Dr. Kinney mentions that "a screening study for lipids of 1,635 nondiabetic patients in Rockland County, New York, demonstrated a rate of 36% abnormal lipid findings." Apparently, there is an elevation of the lipid findings in his patients, and this fact might be clinically significant. There was no mention of results obtained with the correction of these abnormalities. Dr. Kinney confined his article to the results of testing, not to the methods of treatment nor to the results obtained.

In a recent article, "Diet Therapy in Treatment of Allergy," I mentioned a patient whom I had treated with a sudden neurosensory hearing loss.[2] The patient was found to have an elevated serum triglyceride level of 330 mg/dl. I treated this patient with a modification of Dr. Walter Kempner's rice-juice diet, the diet that has been used at the Duke University Hospital for the treatment of hypertension. Dr. Kempner noted that "hypercholesterolemia decreased rapidly with the rice diet" used by 284 patients whose serum cholesterol was over 220 mg/dl serum.[3] The majority had a drop to acceptable ranges.

I placed the patient with the hearing loss on this diet, and within three weeks her triglyceride level had fallen to 180 mg/dl. With the drop in the blood level of the triglycerides, her hearing gradually began to return to a level within normal limits.

Another patient, D.B.B., a 47-year-old truck driver, was seen in August, 1980. His complaint was of vertigo of two weeks' duration. This vertigo was provoked when he turned his head either right or left. His triglycerides were 350 mg/dl. Also, a 1-hour glucose tolerance test revealed an FBS of 125 mg/dl which rose to 300 mg/dl in 2 hours. The patient was placed on the diet in connection with his family physician who was following his diabetes. His vertigo improved after one week on the diet. He was lost to follow-up for one month. When he returned, however, the serum triglycerides had dropped to 97 mg/dl. He has continued to do well by the dietary limiting of his fats.

I have had other patients with vertigo, unsteadiness or hearing loss, who suffered elevated levels of triglycerides. All have shown some improvement on the rice-apple juice diet. It is very difficult for some patients to maintain this diet alone, and I, therefore, have added boiled chicken, with only salt added to it in the cooking process.

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If the triglycerides do not steadily drop with the above mentioned diet, I must then remove the chicken and return to the basic diet. One cup of enriched white rice contains 12 gm of protein and 1 gm of fat. Cooked rice contains 4 gm of protein and a trace of fat. One cup of apple juice contains a trace of fat and a trace of protein. Interesting to note, is that two-thirds of the protein has been changed or lost by cooking. I do not have any statistics on these percentages, but much of the protein may have been hydrolyzed into polypeptides or amino acids by this process.

Protein Absorption

The breakdown of proteins by boiling will further make them more easily digested in the small intestine. The ingestion of the protein content of the rice remains a different problem. The apple juice will not be considered as it contains only a trace of fat and protein. Protein hydrolytic products, through the action of the enzymes of the stomach and the small intestine, are presented to the mucosa of the upper two-thirds of the small intestine for absorption. Matthews states: "In the last 20 years, the protein absorption has been studied with increasing intensity, and a large book could be written on this subject alone. In spite of this volume of work, it has recently become clear that our knowledge of protein absorption is still far from complete, since until recently nearly all works have been concerned with the intestinal transport of amino acids."[4]

Matthews mentions that the classical view of proteins' being absorbed as amino acids was based on the observations of Conheheim in 1901. Prior to that time, it was believed that proteins were absorbed as polypeptides. Conheheim demonstrated that there was peptidase activity remaining in the lumen of the small intestine. This finding led to the acceptance that all of the protein products had been broken down into amino acids and had been absorbed as those substances. Several investigators before 1914 reported that "peptones produced by tryptic hydrolysis of proteins disappeared from the intestinal lumen more rapdily than amino acids, which served to suggest that some protein at least might be absorbed as peptides."[5] The previous work was largely ignored until 1960. In 1959 it was shown by Newley and Smyth that the dipeptide glyclglycine was taken up intact from the intestinal lumen and hydrolyzed by the mucosal cells. The present view is that there appears to be at least two modes of absorption of protein digestion products: 1) absorption of free amino acids, and 2) intestinal mucosal uptake of oligopeptides, with hydrolysis to amino acids, by the peptipases of the mucosal cells.

Cornell, Walker, and Isselbacher have experimentally shown that intact protein molecules could be absorbed from the small intestine.[5] Horseradish peroxidase (HRP), a protein compound with a molecular weight of 40,000, was injected into the lumen of ligated segments of rats' small intestine. Electronmicroscopy revealed large (HRP) molecules within the portal circulation of these rats 15 minutes after intraluminal injection. I have quoted this work previously in another particle, wherein I discussed two patients with prolonged, induced, allergic reactions to drugs who were assumed benefited by removing their exogenous protein-binding sources.

Lipid Transport

Azarnoff states that "concealed within the diagnosis, primary hyperlipidemia, are identifiable transport defects associated with abnormalities in lipoprotein production and clearance. Today's greater success in the management of the hyperlipidemias can be traced to increased clinical application of new knowledge and insights into lipid transportation mechanisms and the metabolism of lipoprotein carriers."[7]

Kempner noted that there was a dramatic fall in the serum cholesterol of patients on the rice-juice diet. I have mentioned a few cases of significant reduction of triglycerides achieved by using a similar diet. !Jnfortunately, there is no reported measurement by Kempner of the fecal total lipid excretion of patients on the rice-juice diet. I talked to Dr. Kempner and was unable to obtain pertinent information concerning this measurement. Portman cites references which reveal that the addition or removal of certain amino acids may raise or lower the serum cholesterol and correspondingly raise or lower the lipid content of the stool.[8] We must keep in mind that the rice-juice diet is the most significant diet available for reducing the serum lipid levels. Other than the minute amount of fat available in this diet for absorption, there may be yet another mechanism for the lowering of the serum lipid level. To form some understanding of this, one must first understand the way in which lipids are absorbed.

Cholesterol and triglycerides are insoluble in plasma. As a means of transport, they are bound loosely to carrier proteins. In this form, lipoproteins, they become soluble in the blood. Structurally, a lipoprotein may be visualized as a large spherical complex—a central core consisting principally of cholesterol esters and triglycerides, surrounded by a coating of phospholipid which is surrounded by a protein shell. Chylomicrons are the largest and lightest of the lipoprotein complexes. These are the plasma transport system for fats absorbed from the gut. These are synthesized and manufactured in the gut.

Amino acids in pure form are much harder to absorb than slightly larger peptide chains. When two or more amino acids in pure form are available in the intestinal lumen, often there is competition for transport across the mucosal boundary. One amino acid may competitively inhibit the absorption of the other. There seems to be more rapid absorption of oligopeptides than of free amino acids. The intestine is a highly active site of protein synthesis. How much of this protein synthesis is

of exogenous or endogenous amino acid derivation has not been determined.

We must assume that almost all of the protein of the rice has been hydrolyzed by cooking and by intestinal enzymatic processes into its basic amino acid content. If this hypothesis is true, then these pure amino acids might be more slowly absorbed than if they were found as large peptide molecules. This slower absorption of amino acid building blocks might retard the formation of chylomicrons for the transport of cholesterol and triglycerides into the serum. Portman has cited references that tenable assume exogenous amino acids were needed for chylomicron formation.

Atherosclerotic Process

Wissler used monkeys as animal models for the study of the development of the atherosclerotic plaque.[10] By supplementing the standard low-fat commercial primate ration with 20% butterfat and 2% crystalline cholesterol, he found a marked increase in the severity of atherosclerosis in these animals. He also found that "the rhesus atherosclerotic process could be markedly accelerated by using a 50:50 mixture of coconut oil and butterfat to supplement the cholesterol-enriched primate ration.[11] Amazingly, the most notable findings were in animals which were fed peanut oil; although serum lipid levels were increased less than with corn oil, the atherosclerotic lesions were very severe.

By increasing the amount of protein content of the foods fed, there was an increasing severity of atherosclerosis produced. Coconut oil and peanut oil have a much higher concentration of protein than does butterfat.[11]

The question of why patients improve by lowering triglyceride levels still remains unexplained. Kempner noted that the eyeground changes of hypertensive arteriosclerosis with thickening and hyalinization of the vessel wall reverted to normal-appearing vessels after reduction of hypertension. These vessels are deficient in medial muscle layers after their first division. Very little, if any, atherosclerotic changes—deposition of triglycerides and cholesterol—take place in these vessels. Wissler believes that the more serious aspects of atherosclerotic lesion are due to the reaction of the muscle fibers of the media. The proliferation fibrous cap surrounding the deposited cholesterol, he believes, is composed primarily of the muscle tissue converted into a collagen-forming cell and stimulated by the presence of LD lipoprotein.

The vessels supplying blood to the inner ear are end-arteries. Hypoxia of the labyrinth would produce the symptoms of vertigo, tinnitus, and hearing loss. Lipid deposition in the intimal layers could contribute to this hypoxia. Lazzarini-Robertson found that reducing the oxygen content of cells increased the uptake of extracellular lipids.[10] Wissler also presents evidence that experimentally-induced atherosclerosis in animals can be reversed by dietary lowering of fat by increasing the oxygen content of the blood, and by adding estrogen or a cholesterol-lowering drug.

Perhaps, in some of our cases of Meniere's disease with hyperlipidemia, there may be deposition of lipids in the vessel walls. These lesions might possibly be reversed since there are few medial cells to proliferate and wall off these foreign deposits. By significantly lowering the lipid concentration of the serum, these foreign deposits could be mobilized out of the vessel wall. The resulting improvement in oxygen saturation would enhance the lipid removal and alleviate the symptoms.

Moore studied the diets of 208 autopsied black and white males in New Orleans between the ages of 29 and 52. The white male population had the higher incidence of atherosclerosis. The only difference Moore found in the dietary habits of the two groups was that the white males ate more animal protein while the black males ate more rice.[12]

Summary

This paper is an elaboration on one important metabolic finding in Meniere's disease—hyperlipidemia. A cursory effort has been made to correlate significant laboratory research that would give some basis for the clinical improvement obtained by lowering the blood lipids. I say "cursory effort" because each of us is aware of the prolonged and sustained effort to understand this disease. Empirical conclusions have been drawn by the author from scientific research and clinical observations. There is little notation in medical literature, however, directed toward the role of protein digestion in the gut and its effect on triglyceride absorption and transportation.

Experimental evidence has been cited which reveals that absorption of purified amino acids is slower than absorption of oligopeptides. It has been suggested that the resulting slowing of transportation of protein building blocks may interfere with the synthesis of lipoprotein at the mucosal surface. Rice, although low in fat, is also low in protein. The protein is very easily hydrolyzed into its basic amino acids.

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DR. ISRAEL (Continued from Page 14)

is, he says. If the old truck is out back, he's in. If it's gone, he's out.

For strangers, the way to find Dr. Israel's modern office is to find the hospital, then follow the stream of white-coated technicians crossing the street carrying x-rays and test reports to him. You can't miss it, a filling station proprietor told a visitor recently. Sure enough, you can't.

Dr. Israel has been a prime mover in the CPR life support effort in the state. A lot of people were getting to the doctor too late, he says, and "there just had to be a better way." He took his first course in advanced life support in Birmingham five years ago. Then he got interested in basic and has subsequently taught it to more people in his county, percentagewise, than in any county in the state.

"It has definitely paid off. We are getting patients quicker, even when CPR is not used. People are simply much more aware of the need for prompt medical attention in emergencies."

As Good as the Best

The county already has radio communication with hospitals and law enforcement, Anniston and incoming helicopters. Critical cases can be airlifted to Birmingham in 40 minutes. Soon an advanced radio switching station will be installed, making communications even more efficient.

"We can now deliver just as good medicine right here as anywhere else," Dr. Israel says in his den-like office. "I know just about all the doctors in University Hospital and I use Mistline every day. I think we've got the best specialists in the field now. Just last night I had one of the best surgeons in the state come up here from Opelika and do surgery for me, because the other surgeon was out of town.

"Most of this state is rural and most of the doctors are in the cities. But people get sick and die on the farms and the country roads. The people in Montgomery and Birmingham never see the roads and farms."

If projections are accurate that this decade will end with a substantial surplus of physicians, Dr. Israel was asked, would they flood the countryside, as some have predicted, making the rural shortage of doctors a thing of the past?

"No. It will never happen. You aren't going to force doctors to do anything. If they want to practice in Birmingham, and there are already 10,000 doctors there, they are going to practice in Birmingham. And they're going to make a living. Those of us who are going to do semi-independent practice are going to do it anyway."

Contrary to popular belief, young physicians with a rural background are less likely to choose rural practice, he says:

"Take our son, Bobby. He wouldn't touch it with a 10-foot pole. I never talked to him about it and he never brought it up. We didn't have to. I knew and he knew this is not what he wanted."

Dr. Israel has had many good offers to leave Wedowee but he knows he can no more think of that than his son can think of returning, he says.

He glances at his watch. It is about 1 p.m. He gets up from the table after enjoying another hot, home-cooked lunch (a daily routine) and climbs back in his pickup for the one-minute ride back to his office, plainly a contented man.

Glancing at the sky above the high pines surrounding his home, Dr. Israel wonders if it might rain again soon. He almost says the peas and corn need it. But in deference to his city visitor, who wouldn't know or care about things like that, he stops short.

THE SAGE OF RANDOLPH COUNTY

(Continued from Page 13)

On time:

"It is not the inevitability of the future nor the irretreivability of the past that stands out. It is, rather, the brevity of the present."

On his stubborness:

"Somehow I can't believe that being a physician in solo practice is a total anachronism, not to say antiquity. . . ."

On modern life:

"Our convenience is inflated beyond all reason. The football game in the sitting room can be turned on and off by remote control; our garage doors open as if by magic; grocery packaging makes it possible to eat for weeks without actually cooking anything . . . Surely this is inflation in just as real a sense as the devaluation of money. . . ."

On the preservation/progress paradox:

". . . As I contemplate the changes this dam will bring, I realize how simple it would be to be an out-and-out conservationist or to be an eager beaver for progress. Instead, I have the ambivalent feelings of regret for loss of the natural river and gratitude for improvements, economic and otherwise, which come with progress. . . My children are loudly mourning the loss of the free flowing river; they will probably be among the first to ski on the new lake. . . ."

On a timeless question:

"The question, 'Am I my brother's keeper?' will never be laid to rest. . . I am thankful to belong to a profession where being my brother's keeper sort of comes with the territory."

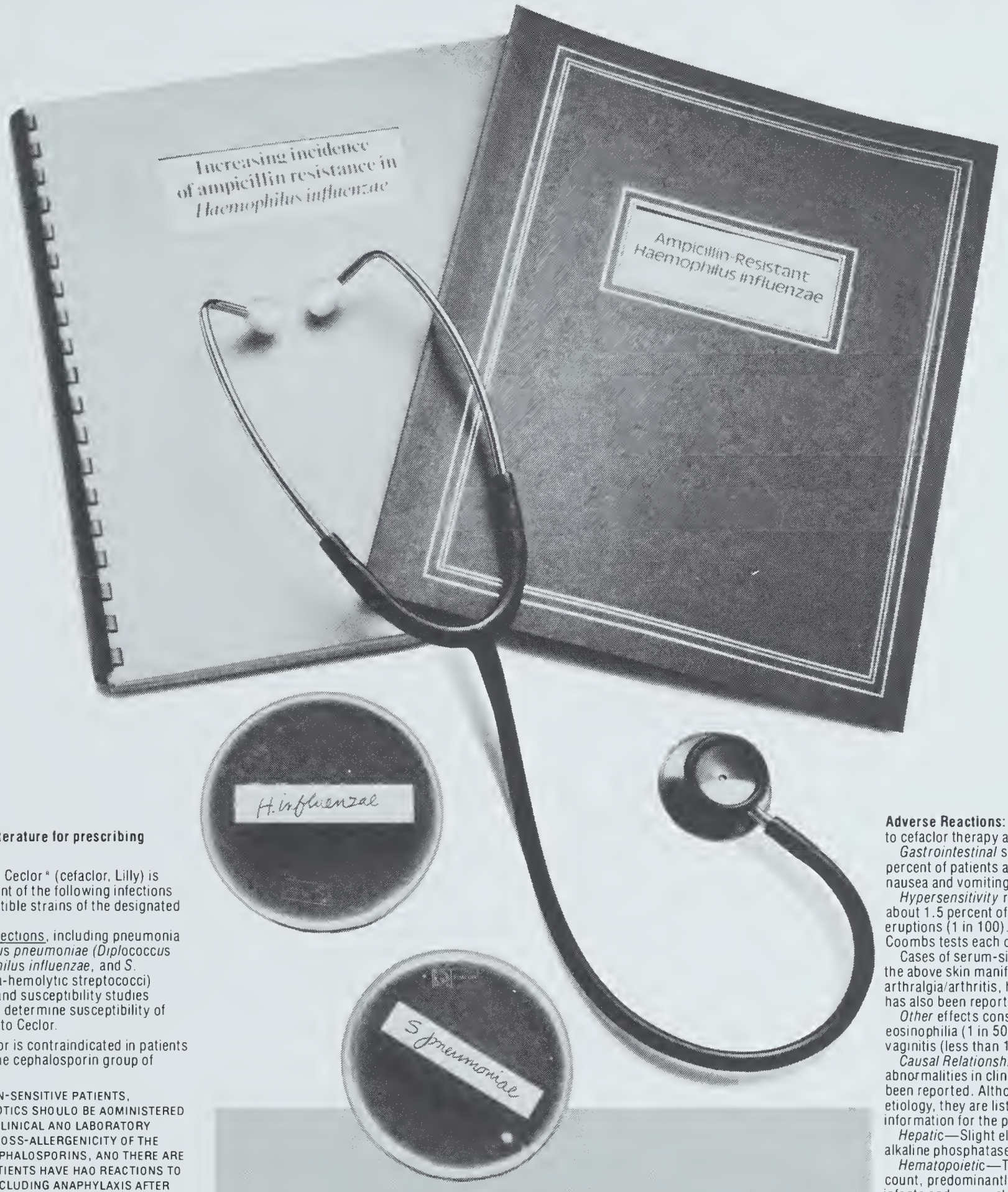
On the death of friend:

"John was not yet 40; he was strong in every sense of the word; he was intelligent and was blessed with that elusive quality, common sense; he was helpful and useful in every situation; he was aware that I am very fallible, but he never spoke of my errors. . . The very life of a small community depends on men like John who do not care to read their job description to find out how very little they can do, who do not care to receive something for nothing."

On the work ethic:

"Much is written today about the change in the American work ethic. Certainly it seems to be true that work is not much fun for many people, that the fun is in finishing the work hours and getting to the off hours. . . I hope . . . our society can again find joy in work."

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Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients.

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [103080R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

1. Antimicrob. Agents Chemother., *8*:91, 1975.
2. Antimicrob. Agents Chemother., *11*:470, 1977.
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4. Antimicrob. Agents Chemother., *12*:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II: 880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., *13*:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

Lilly

Eli Lilly Industries, Inc.
Carolina, Puerto Rico 00630

100061



Mrs. Rufus E. Lee, Jr.
President, A-MASA



DOCTOR, WE WANT TO HELP YOU

The MASA Auxiliary is an arm of your Medical Association, and we want to extend your arm as far as it can possibly reach. We want to be a part of your profession by assisting in your projects and improving the quality of life of all those who need our help but, most specifically, the quality of life for you.

For the past year, I have asked myself many times over, what do we really want to accomplish in the next year? As the Medical Auxiliary, we feel our duty lies in improving the quality of life for medical families in our state.

The AMA Auxiliary has chosen Shape Up For Life Through Mental Fitness as the theme for 1981-82. MASA has revitalized the Impaired Physician Rehabilitation Program. The two ideas certainly coincide. There is absolutely no one more anxious for or interested in the impaired physician than your spouse.

The quality of life ranges from prenatal care to the care of the elderly but somewhere the health and well being of the physician and his family fit into the scheme for better health in our state.

We all concur that a physician who is on drugs, alcohol, or one who is entirely stressed out, cannot practice medicine at the level of his true capability. Knowing that such problems exist, we want to improve the mental and physical well being of the doctor so that he can practice to his fullest potential in addition to having a good family life.

We realize that the stress you carry is caused from many sources—such as lack of time to answer all the needs of your patients, keeping up with advancements in your field, your family demands, and your community obligations. How can we help?

We have been told that approximately 10% of physicians across the country are impaired by alcohol and drugs. We are told of the high suicide rate of doctors, the high divorce rate and the high incidence of runaways, drug abusers and suicides of our own children. As your life partners, we seek not only to love and support you, but also to help you work through any problem areas that exist in your life's work now or in the future.

The Auxiliary has many projects planned which hopefully, will help you with a few of the stresses you carry. There will be a questionaire sent to either you or your spouse that will assist in identifying the impaired physican family and guiding them to sources of help. We will place emphasis on improving the medical marriage. We hope to open communication within the families, so that we can more readily recognize the problem areas of our lives.

Realizing these areas are sensitive and difficult to discuss and treat without pain, let us be patient, kind and helpful.

As we work together toward Better Health in Alabama let us do so with love and compassion. Let us form new friendships and strengthen existing ones. May we always be proud to be a part of the most respected of professions and never embarrass it.

I don't know who wrote the following poem, but it must have been a physician's wife.

A DOCTOR'S HANDS

I never knew that hands could be
So gentle, kind and true
Until I watched their skill perform
The blessed tasks yours do.

No artist ever plied his brush
With love or art so pure
No sculptor ever used his tools
With strokes so deft and sure.

I think God Blessed your kindly hands
From ages past and dim
Because he loves the work you do
In partnership with Him.



Mary Julia Lee

Valium® (IV)
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, impending or acute delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: relief of skeletal muscle spasm due to reflex spasm to locai pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome. *Oral form* may be used adjunctively in convulsive disorders, but not as sole therapy. *Injectable form* may also be used adjunctively in: status epilepticus; severe recurrent seizures; tetanus; anxiety, tension or acute stress reactions prior to endoscopic/surgical procedures; cardioversion.

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Tablets in children under 6 months of age; known hypersensitivity; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited.to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL: Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral form adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

INJECTABLE: *To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling, and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins,* i.e., *dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest; concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea; have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least ⅓, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs.

Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence; can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with knowr compounds which may potentiate action of Valium (diazepam/Roche), *i.e.*, phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).

INJECTABLE: Although promptly controlled, seizures may return; re-administer if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, have been observed in patients during and after Valium (diazepam/Roche) therapy and are of no known significance.

INJECTABLE: Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia.

In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

Dosage: Individualized for maximum beneficial effect.

ORAL—*Adults*: Anxiety disorders, relief of symptoms of anxiety, 2 to 10 mg *b.i.d.* to *q.i.d.*; acute alcohol withdrawal, 10 mg *t.i.d.* or *q.i.d.* in first 24 hours, then 5 mg *t.i.d.* or *q.i.d.* as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg *t.i.d.* or *q.i.d.*; adjunctively in convulsive disorders, 2 to 10 mg *b.i.d.* to *q.i.d. Geriatric or debilitated patients*: 2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg *t.i.d.* or *q.i.d.* initially, increasing as needed and tolerated (not for use under 6 months).

INJECTABLE: Usual initial dose in older children and adults is 2 to 20 mg I.M. or I.V., depending on indication and severity. Larger doses may be required in some conditions (tetanus). In acute conditions injection may be repeated within 1 hour, although interval of 3 to 4 hours is usually satisfactory. Lower doses (usually 2 to 5 mg) with slow dosage increase for elderly or debilitated patients and when sedative drugs are added. (See Warnings and Adverse Reactions.)

For dosages in infants and children see below; have resuscitative facilities available.

I.M. use: by deep injection into the muscle.

I.V. use: inject slowly, take at least one minute for each 5 mg (1 ml) given. Do not use small veins, i.e., *dorsum of hand or wrist. Use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Moderate anxiety disorders and symptoms of anxiety, 2 to 5 mg I.M. or I.V., and severe anxiety disorders and symptoms of anxiety, 5 to 10 mg I.M. or I.V., repeat in 3 to 4 hours if necessary; acute alcoholic withdrawal, 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary. Muscle spasm, in adults, 5 to 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary (tetanus may require larger doses); in children, *administer I.V. slowly;* for tetanus in infants over 30 days of age, 1 to 2 mg I.M. or I.V., repeat every 3 to 4 hours if necessary; in children 5 years or older, 5 to 10 mg repeated every 3 to 4 hours as needed. Respiratory assistance should be available.

Status epilepticus, severe recurrent convulsive seizures (I.V. route preferred), 5 to 10 mg adult dose administered slowly, repeat at 10- to 15-minute intervals up to 30 mg maximum. Repeat in 2 to 4 hours if necessary keeping in mind possibility of residual active metabolites. Use caution in presence of chronic lung disease or unstable cardiovascular status. Infants (over 30 days) and children (under 5 years), 0.2 to 0.5 mg slowly every 2 to 5 min., up to 5 mg (I.V. preferred). Children 5 years plus, 1 mg every 2 to 5 min., up to 10 mg (slow I.V. preferred); repeat in 2 to 4 hours if needed. EEG monitoring may be helpful.

In endoscopic procedures, titrate I.V. dosage to desired sedative response, generally 10 mg or less but up to 20 mg (if narcotics are omitted) immediately prior to procedure; if I.V. cannot be used, 5 to 10 mg I.M. approximately 30 minutes prior to procedure. As preoperative medication, 10 mg I.M.; in cardioversion, 5 to 15 mg I.V. within 5 to 10 minutes prior to procedure. Once acute symptomatology has been properly controlled with injectable form, patient may be placed on oral form if further treatment is required.

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure; employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension. Dialysis is of limited value.

Supplied: Tablets, 2 mg, 5 mg and 10 mg, bottles of 100 and 500; Tel-E-Dose® (unit dose) packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10. Ampuls, 2 ml, boxes of 10; Vials, 10 ml, boxes of 1; Tel-E-Ject® (disposable syringes), 2 ml, boxes of 10. Each ml contains 5 mg diazepam, compounded with 40% propylene glycol, 10% ethyl alcohol, 5% sodium benzoate and benzoic acid as buffers, and 1.5% benzyl alcohol as preservative.

ROCHE®
ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse" and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium® (diazepam/Roche) Ⓥ, please see the preceding page.
Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

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3 1378 00433 0984